

The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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1882.—VOL. XLIII.

LONDON. SATURDAY. AUGUST 16, 1873.

[WITH SUPPLEMENT.] { PRICE FIVEPENCE.
PER ANNUM, BY POST, £1 4s.

AMES CROFTS, STOCK AND SHARE BROKER,
No. 1, FINCH LANE, CORNHILL, LONDON, E.C.
(ESTABLISHED 1842).
Every description of shares bought and sold at net prices.
It is now greatly in favour of buyers. SPECIALLY RECOMMENDED FOR
PURCHASE—WHEAL MARY, WEST TANKERVILLE, CASTLE AN DINAS.
BUSINESS IN ENNA, FLAGSTAFF, TECOMA, LAST CHANCE.

W. H. BUMPUS, STOCK AND SHARE DEALER,
THREADNEEDLE STREET, LONDON, E.C., HAS FOR SALE the
SHARES, free of commission:—
35 East Van, £4 1/2.
50 Plynnimmon, 12s. 6d.
40 Pennerley, £2 1/2.
30 Flagstaff, £8 1/2.
25 Penrhyn, £2 1/2.
50 Furze Hill, 10s.
50 Perkins Beach, 7s.
50 Penstruthal, 20s. 6d.
100 Rica (Gold), 11s. 9d.
25 Richmond, £8 9s. 9d.
10 Roman Gravels.
50 South Roman Gravels.
30 Sweetland, £5 1/2.
15 W. Condurrow, £6.
50 Last Chance, £5 1/2.
50 Marke Valley, 20s.
10 Minera.
5 Tankerville, £12.
50 Tecoma, £5 1/2.
25 Van Consols, £4 1/2.
50 New Rosewarne, 13s. 9d.
30 Wheal Mary, £4 1/2.
40 New Querbara, £5 1/2.
25 New Silver Rake.
75 Old Batholes, 15s. 6d.
50 Malpas, 20s. 6d.
35 New Dolcoath, £2 13s 3d.
50 New Rosewarne, 13s. 9d.
30 Wheal Mary, £4 1/2.
40 New Querbara, £5 1/2.
25 New Silver Rake.
75 Old Batholes, 15s. 6d.
transacts business in every description of shares at the best market
free of commission.
Bankers: National Provincial Bank of England, E.C.

YOUNG HUSBAND CHRISTIAN,
STOCK AND SHARE DEALER,
11, ROYAL EXCHANGE, E.C.

E. J. BARTLETT, STOCK AND SHARE DEALER,
6, GREAT ST. HELEN'S, LONDON, E.C. transacts business at
in every description of security.

Shareholders should read the Special Edition of
"HOW TO INVEST"
(Post free 15 stamps).

THE CAPITALIST'S GUIDE.

C. POWELL, STOCK AND SHAREDEALER,
78, OLD BROAD STREET, LONDON, E.C.

JOHN RISLEY, STOCK AND SHARE BROKER,
77, CORNHILL, LONDON.

Croft, Treleigh Wood, and Wheal Grenville Mines strongly recom-
mend the shares in all probability will advance in price many hundreds per
cent in a few months hence.

HENRY MANSELL, STOCK AND SHARE DEALER,
14, GREAT WINCHESTER STREET, LONDON, E.C.
CUMMICK.—Mr. H. M. calls attention to this mine, and advises the purchase at once for a great rise from the present price.

R. WILLIAM WARD
(Late WARD and LITTLEWOOD),
CROSBY HOUSE, 95, BISHOPSGATE STREET WITHIN, E.C.,
in all KINDS of STOCKS and SHARES, for cash or on the account.

R. THOMAS THOMPSON, JUN., 1, PALMERSTON
BUILDINGS, BISHOPSGATE STREET, LONDON, E.C.
valuable hints as to the purchase of mining shares will be found in Mr. Thompson's "Investment Circular" for August now ready, post free, price 6d.

R. T. COMYN, STOCK AND SHARE DEALER,
31, THREADNEEDLE STREET, LONDON, E.C.
Bankers: National Provincial Bank, Bishopsgate-street.

DOLCOATH.—This mine is producing large quantities of tin and copper ores, pronounced by Messrs. Vivian and Son to be "one of the richest mining districts in the world."

DOUGLAS.—For some time little has ever been heard of this mine owing to work having been confined to the clearing of the adit for some hundreds of feet which had "run in" during the long continued wet weather last year. Work is now completed, and sinking on splendid tin and copper lodes is now carried on with the most successful results. Finer specimens of tin and copper cannot be seen than those I had sent up from the heaps I saw on a few days since, and an inspection of them at this office is invited.

VAN CONSOLS, AND GREAT WEST VAN.—These mines will each pay first dividend next month; they are opening out splendidly and making returns.

COMYS will be glad to quote prices for either of the above, and give reliable information respecting them to intending purchasers.

ESSRS. BLYTH AND HUTCHINSON,
STOCK AND SHARE BROKERS,
3, GEORGE YARD, LOMBARD STREET, LONDON, E.C.
every information respecting Railways, British and Foreign Stocks, Mines, &c.,
furnished free by post or on application.

Price-List daily.
Bankers: Alliance Bank.

ESSRS. WM. MARLBOROUGH AND CO.,
29, BISHOPSGATE STREET WITHIN, LONDON, E.C. (Established
1842), have FOR SALE the following SHARES at prices annexed:—

50 Great West Van.
50 Glamorgan, 4s.
50 Perkins Beach, 7s.
50 Penstruthal, 21s.
50 Roman Gravels, £20 8s 9d.
20 Richmond, £6 6s. 3d.
25 Great Vor, £3 17s. 6d.
50 Greaton, 20s.
15 W. Condurrow, £5 18s 3d.
10 Great Laxey, £16 1/2.
20 Hindon Down, £3 1/2.
25 St. Bredon, off. wd.
100 St. Caradon, off. wd.
25 Sweetland Chk., £4 18s 9d.
20 Hindon Down, £3 1/2.
100 St. Pol, 15s.
10 Herodsfoot, 6s.
10 Tankerville, £11 16s. 3d.
100 Tyllwyd.
25 Tin Valley.
30 Tincroft, £4 1/2.
25 Tecoma, £5 1/2.
100 Van Consols, £4 16s. 3d.
5 Van, £3 1/2.
2 Minera, £25 1/2.
25 Ladywell, £3 13s. 9d.
15 Lovell.
25 Marke Valley, 25s.
75 Medlyn Moor, 9s.
2 Minera, £25 1/2.
10 Maughold-Head, 34s 6d.
30 New Querbara, £3 1/2.
30 Newfoundland, £29 1/2.
45 New Silver Rake.
40 New Dolcoath, £2 1/2.
30 Nanglais, offer wtd.
50 North Pool, 20s. 6d.
30 New Rosewarne, 9s 3d.
75 Old Trebregent, 10s.
50 Plynnimmon, 9s.
20 Pennerley, £2 2s.
50 Pridewater, £5.
50 Priddywood, £5.
5 Providence, £8 1/2.

R. GEORGE BUDGE, STOCK AND SHARE DEALER,
No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established
23 years), is a SELLER at net prices of:—

50 Wheal Mary; 70 Blue Hills, 31s.; 70 St. Agnes Consols; 100 Tyllwyd; 15 East
Van, £4 6s. 3d.; 50 Ladywell, £3 12s.; 60 New Dolcoath, £2 1/2.; 100 Cwm Elan,
£6.; 100 Killifreth, 10s. 6d.; 75 Prince of Wales, 6s. 6d.; 220 Medlyn Moor,
£12 8s. 6d.; 100 New Silver Rake, £5.; 120 Penstruthal; 100
Penydarfield; 100 South Tolcarne, 17s.; 50 Van Consols; 65 West Gorland, £3;
50 Pennerley, £2 1s. 6d.; 120 Fortescue; 80 Boscaswell Downs; 100 Bridgeway
 Creek, £2 1/2.; 40 Last Chance; 100 Emma, £5 1/2.; 25 Flagstaff; 30 Tecoma; 60
Newfoundland; 50 Cedar Creek, £1 1/2.; 200 Gold Run, 6s.; 200 Exchequer, 11s. 6d.;
50 Malabar, 10s. 6d.; 150 New Rosario, 13s.; 50 Thornhill Reef, £1 1/2.

Mr. BUDGE recommends investors to become acquainted with the merits of
the new track mine. Notwithstanding the company has been so long established, and
the works considerably advanced, and the mine equipped with excellent machinery,
the whole property does not command a market value of more than £2600. There
are other mines the shares of which should be bought.

Mr. B. can offer 100 shares at £2 each net.

WEEKLY MINING CIRCULAR, EVERY FRIDAY.—
LONDON DAILY RECORD, STOCK & SHARE LIST, Every Evening.
Published by P. WATSON, Stock and Share Dealer, 79, Old Broad-street, E.C.
Bankers: The Alliance Bank, and Union Bank of London.

M. T. E. W. THOMAS, STOCK AND SHARE BROKER,
3, GREAT WINCHESTER STREET BUILDINGS, E.C.
Established 1857.

Mr. THOMAS recommends his clients to purchase into the WEST GODOLPHIN
and SOUTH CONDURROW TIN MINES, which can now be effected on the most favourable
terms. Both of these mines are expected to commence making regular dividends
within the next three months, when the shares must have a very great
market rise.

M. R. TREGELLAWS, 122, BISHOPSGATE STREET
WITHIN, E.C.,
Deals in all descriptions of Stocks and Shares at close market prices.

IMPORTANT TO SHAREHOLDERS IN ALL PUBLIC COMPANIES.
WHAT TO SELECT—WHAT TO AVOID.—
BY FREDK. WM. MANSELL.

ENGLISH AND FOREIGN STOCK AND SHARE DEALER,
PINNER'S HALL, OLD BROAD STREET, LONDON, E.C.

The AUGUST number (now ready) contains a Comprehensive Review of the
Position and Prospects of the General Investment and Mining Markets, &c.,
which should be read by all shareholders and others interested in such matters.
It also contains many valuable hints to speculators.

* Differing in every respect from all monthly Circulars, it embodies a large
amount of valuable information, and well deserves being filed for future reference.
—Vide London press.

Gratis to clients. Subscription 1s. per copy, or 10s. 6d. per annum.
Established 1857. Bankers: London Joint-Stock Bank.

MESSRS. GREGORY, WHITAKER, AND CO., STOCK AND
SHARE DEALERS, AND GENERAL FINANCIERS, 81, BISHOPSGATE
STREET, LONDON.

Business transacted in all Marketable Securities at closest prices.
Messrs. G., W., and Co. have SPECIAL BUSINESS in the following shares:—
Bampfyde, Boscaswell Downs, Brynn, and Woodclose and Polgooth.

MESSRS. W. DUNN AND CO., STOCK AND SHARE
DEALERS, 3 AND 4, GREAT WINCHESTER STREET BUILDINGS,
LONDON, E.C.

Orders received and commissions executed.

Bankers: National Provincial Bank of England.
W. D. and Co. have FOR SALE the following at net prices:—
50 Aberdaunant, 8s.
25 Boscaswell, 11s.
25 Devon Gt. Con., £2 15.
50 Penstruthal.
50 South Tolcarne, 17s.
50 Ladywell, £3 15s.
10 Lovell Tin, £5 1/2.
25 Tyllwyd.
30 W. Tankerville, £3 16s.

M. R. E. CHARTERS, 8, CRAIG'S COURT, CHARING CROSS,
LONDON, has the FOLLOWING SHARES, free of commission:—

40 Alt-y-Crib, 17s. 3d.
50 Almadra, 16s. 9d.
50 Australian, £2 1/2.
200 Australian United, 4s.
50 Ballygummin, 40s.
50 Ballygummin, 40s.
50 Bampfyde, £3.
60 Bog, £1 1/2.
50 Bellsavia, £9 1/2.
25 Birdseye Creek, £1 1/2.
30 Castle Gates, 18s.
50 Dolcoath, £6.
30 Great Vor, £3 17s. 6d.
25 Hindon Down, £3 1/2.
100 Gold Run, 6s. 3d.
50 Greaton, 20s.
15 W. Condurrow, £5 18s 3d.
10 Great Laxey, £16 1/2.
20 Hindon Down, £3 1/2.
100 St. Bredon, off. wd.
25 Sweetland Chk., £4 18s 9d.
20 Hindon Down, £3 1/2.
100 St. Pol, 15s.
10 Herodsfoot, 6s.
10 Tankerville, £11 16s. 3d.
100 Tyllwyd.
25 Tin Valley.
30 Tincroft, £4 1/2.
25 Tecoma, £5 1/2.
100 Van Consols, £4 16s. 3d.
5 Van, £3 1/2.
2 Minera, £25 1/2.
25 Ladywell, £3 13s. 9d.
15 Lovell.
25 Marke Valley, 25s.
75 Medlyn Moor, 9s.
2 Minera, £25 1/2.
10 Maughold-Head, 34s 6d.
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45 New Silver Rake.
40 New Dolcoath, £2 1/2.
30 Nanglais, offer wtd.
50 North Pool, 20s. 6d.
30 New Rosewarne, 9s 3d.
75 Old Trebregent, 10s.
50 Plynnimmon, 9s.
20 Pennerley, £2 2s.
50 Pridewater, £5.
50 Pridewater, £5.
5 Providence, £8 1/2.

INVESTORS IN ENGLISH AND FOREIGN BONDS,
Railways, Bank Shares, Mines, should consult

THE INVESTMENT REVIEW,
Independent, Fearless, and Exhaustive,
By JOHN R. PIKE, STOCK AND SHARE DEALER,
CROWN CHAMBERS, THREADNEEDLE STREET, LONDON.

Post free, Threepence.

MESSRS. JOHN MOSS, STOCK AND SHARE DEALER,
ST. MICHAEL'S CHAMBERS, 42, CORNHILL, E.C., LONDON, has
business in all British and Foreign Mines, and is prepared to lend money on any
marketable Stocks or Shares at moderate rates of interest. Shares sold for delivery
three, four, or six months hence on receipt of cover of 20 per cent.

SPECIAL BUSINESS in Flagstaff, at £8 1/2.; Richmond, £6 1/2.; Tecoma, £5;
Emma, £5 1/2.; Last Chance, £5 1/2. Latest and most reliable information concerning
the above may be obtained on application.

Bankers: City Bank, Finch-lane, E.C.

FERDINAND R. KIRK, STOCK AND SHARE DEALER,
4, BIRCHIN LANE, LOMBARD STREET.

Shares difficult to realise receive special attention either for sale or exchange.

MESSRS. VALENTINE & CO., 17 AND 18, CORNHILL, E.C.,
BANKERS, BROKERS, AND FINANCIAL AGENTS.

Sale of Stocks and Shares, by Public Auction, every Tuesday, at the Mart,
Tokenhouse-yard, E.C.

MCKENNA & CO., STOCK AND SHARE BROKERS,
5, UNION COURT, OLD BROAD STREET, E.C.

Flagstaff, £8 1/2 to £9.
Emma, £5 1/2 to £6.
Chicago, £2 1/2 dis. to par.
Tecoma, £5 1/2 to £6.
Last Chance, £5 1/2 to £6.

Business for cash or account.

MR. JAMES STOCKER, STOCK AND SHARE DEALER,
2, CROWN COURT, THREADNEEDLE STREET.

Railway, Mining, and Miscellaneous Shares bought and sold at the best market
prices. SPECIAL BUSINESS in the following:—

100 Australian Unit, £4 3d

100 Fortescue, 11s.

30 Alt-y-Crib, 20s.

20 Almadra, 17s. 6d.

25 Bawdella, £2 1/2.

30 Blaen Caelan.

30 Bod, 3s.

30 Bonny Cae.

30 Bony Cae.

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Registration of New Companies.

The following joint-stock companies have been duly registered:—

MIDDLE AMMAN COAL AND IRONSTONE COMPANY (Limited).—Capital £100,000., in 100, shares. To work mines in the Middle Amman Valley, Carmarthenshire. The subscribers are—Thomas Hunt, Middleton Cheney, near Banbury, 20; William Mewburn, Wyphan Park, near Banbury, 50; Geo. Patchett, Minor Bayes, 20; W. Hunt, Haggat House, Wellington, 20; William Edmunds, Duffield Lodge, Banbury, 20; Thomas Barker, Stockport, 20; and H. Edwards, Halifax, 10.

NORTH LAXEY MINING COMPANY (Limited).—Capital 50,000*l.*, in 2, shares. To acquire and work the North Laxey Mine, in the Isle of Man. The subscribers (who take one share each) are—W. C. Butler, 10, Old-square, Lincoln's Inn; J. H. Murdoch, 8, Austin Friars; Wm. Jardine, 19, Great Winchester-street; James Brown, 71, Ashburnham-grove, Greenwich; F. R. Hale, 74, King William-street; Mr. E. Macarthur, 39, John-street, Bedford-row; and Jas. Hall, 13, Chester-square.

UNION MORTGAGE AND LAND COMPANY (Limited).—Capital 50,000*l.*, in 100, shares, in 20*l.* shares. To lend money upon mortgage, &c., and to act as agents for landed proprietors. The subscribers (who take one share each) are—W. Raymond, 31, Peckham-grove; C. W. Saffell, Chancery-road, Herne-hill; H. P. C. de Lisle, 33, Walford-road, South Hornsey; G. Endin, 12, Moorgate street; H. Fitz-roy, Eastbury House, Lower Kentington-lane; J. A. Kennard, 39, Finsbury-circus; and J. H. Buck, 39, Finsbury-circus.

BUNKER HILL GOLD QUARTZ COMPANY (Limited).—Capital 50,000*l.*, in 500, shares, in 5*l.* shares. To acquire mines in California, and elsewhere in America. The subscribers (who take one share each) are—P. T. French, 5, Duke-street; St. James'; John Brown, 31, Lombard-street; C. Clarke, 8, Pinners Hall, E.C.; John Hicks, 25, Abingdon Villa, Kensington; W. F. Rowe, Roll's Chambers, Chancery-lane; G. P. Serocold, Radborough Lodge, Stroud; and J. H. Wood, 2, Gresham-street.

BOULOGNE-SUR-MER NEW TOWN CONSTRUCTION COMPANY (Limited).—Capital 200,000*l.*, in 10*l.* shares. To carry out various improvements in the town of Boulogne. The subscribers (who take one share each) are—Charles Park, 32, Great St. Helens; J. G. Johns, 99, Great Tower-street; D. E. Chandler, Rosenthal House, Willesden; T. J. Ford, 52, Belmont-street, N.; P. B. Oppenheimer, Greenhill House; John Smith, Red Lion court, Fleet-street; and F. E. Mendon, Sutton.

BRITISH GUARANTEE COMPANY (Limited).—Capital 50,000*l.*, in 1*l.* shares. To become guarantee for persons taking responsible positions. The subscribers are—Francis Bennoth, 80, Wood-street, 100; Samuel Smiles, 31, Granville Park, 100; B. M. Carter, M.P., 123, Buckingham Palace-road, 100; Thomas Hughes, 50, Park-street, W., 100; A. W. Fulke Greville, M.P., Ecclesbourne-street, 100; J. Hoyle, 1, Great College-street, 100; W. C. M'Kenna, 15, King-street, Cheshire, 100.

CHESTERING COAL COMPANY (Limited).—Capital 50,000*l.*, in 10*l.* shares. To work coal mines at Cheshire, in the county of Northumberland. The subscribers are—J. L. Bell, Washington Hall, Durham, 725; Thomas Bell, Newcastle-upon-Tyne, 675; T. H. Bell, Redcar, 25; Thomas Bell, jun., Queen-square, Newcastle-upon-Tyne, 25; John Bell, Rushpool, Yorkshire, 750; Henry Bell, jun., Newcastle, 25; C. E. Bell, Durham, 25; E. I. Atkinson, Newcastle, 50.

ALTON COAL, COKE AND IRON COMPANY (Limited).—Capital 100,000*l.*, in 10*l.* shares. To acquire coal and iron mines known as the Alton Colliery, Derbyshire. The subscribers (who take 30 shares each) are—R. W. Jackson, Great Ham Hall, West Hartlepool; G. L. Duckett, 9, Weald House, Oxon; N. N. Hoare, Worth; J. M. Gideon, 8, London-street, E.C.; W. W. Jackson, Melton Lodge, Great Malvern; J. W. Probyn, 29, Clarineade-gardens, Bayswater; Wm. Paynter, 23, Marl Lane.

BRITISH TEMPERLANA COMPANY (Limited).—Capital ——*l.* To purchase patent rights for the manufacture of an improved compound for the fabrication of wool, &c. The subscribers (who take one share each) are—Thomas Hunter, 42, Cornhill; John Thorley, 130, Ebury-street; H. S. Cooper, 3, Adelaide-place, London Bridge; F. Crowe, 41, Bishopsgate-street; J. S. Lundy, 56, Leaden-hill-street; J. P. Lanagan, Sheldhurst-road, South Hackney; C. M. Grant, 41, Bishopsgate-street.

WEST INDIA GAS COMPANY (Limited).—Capital 100,000*l.*, in 10*l.* shares. To acquire concessions for lighting the Island of Guadalupe, and the colony of Surinam with gas. The subscribers are—F. Edwards, 65, St. Clement's House, 10; George E. Newton, 8, Leadenhall-street, 5; J. L. Balfour, Allhallows Chamber, Leadenhall-street, 5; Arthur G. Newton, 8, Leadenhall-street; C. W. Camble, Staines, 5; J. A. Kinard, 39, Finsbury-circus; J. Kent, Railway Approach, London Bridge, 1.

YARDBOROUGH IRON COMPANY (Limited).—Capital 60,000*l.*, in 1*l.* shares. For the purchase of mines and minerals in the parish of Appleby, Lancashire. The subscribers are—James Bain, 129, St. Vincent street, Glasgow, 1*l.*; A. Simpson, Hope-street, Glasgow, 50; John Simpson, Histon-upon-Hull, 50; Henry Simpson, Kingston, 50; Charles Simpson, Leeds, 50; T. E. Simpson, Leeds, 50; John Hett, Worksop, 50; Thomas Freer, Springfield, Lincolnshire, 50; E. Hett, Brigg, Lincolnshire, 50.

Although the Devon and Somerset Railway is not officially opened there quantities of copper and iron ore have during the past week been brought down it in trucks to Barnstaple. The ores are from the North Molton mines, and it is thought when the line is completed that the facilities for conveying the mineral to a shipping port will give an impetus to mining in North Devon.

ILLOGAN MINES.—Great success is anticipated at these mines under Capt. Pryce's able management. A splendid 60*l.* cylinder steam-engine is about to be erected on the new shaft (*Vivian's*), and, judging from what this district has produced in the shape of successful mines, it would seem that these Illogan Mines are destined to follow in the wake of the now famous New Cornwall Mines, which are under the same management, and, we believe, are owned by the same proprietor. Capt. Harris, of the Great Wheal Vor Mines, reported most favourably on this property last week for a large shareholder, and, in fact, it would seem no two opinions exist as to the merits of the undertaking.

KILLEPRETH.—The contract for the new engine-house was let last week upon the understanding that the building should be completed, and the engine erected and ready for work, within three months. This mine continues to look exceedingly well. On Wednesday, 8 tons of tin were sold for 58*s.*, and we understand, with the reduced price of tin, the quarter's accounts, presented on Friday, showed a profit of about 35*s.*

WEAL SHEPHERDS.—Everyone interested in Cornish mining recognises this highly valuable seat, in the parish of Newlyn, has been allowed to remain dormant for a long series of years, owing, it is said, to a difference between the miners as to the dues. The late Sir Christopher Hawkins is stated to have expended £5000. a year in wages for considerable length of time. A writer says: "He began the mine at his own expense, and encouraged it by his first returns; he brought in an adult, erected more than one steam-engine, and wrought the mine to a considerable extent. The quantity of lead raised from the mine proved sufficient to pay all the expenses, and, in addition, the lead was found to be rich in silver, much more the general average of such as are usually tested. All the operations were conducted on the place. The ores were smelted, and the silver to the amount of some tens of thousands of pounds value was extracted from the lead. In all these matters Sir Christopher Hawkins was mainly assisted by Mr. John Giddy, one who, in matters connected with chemistry and practical science, few excelled, and in honour and integrity he was excelled by none."

CORNISH MINE SHARE MARKET.—There is scarcely anything to report on the Share Market during the week. We have not heard of any improvements in any mines, and few fluctuations have taken place. There has been no alteration in the price of tin, and in consequence of this, and the numerous holidays which are being kept, there has been very little business transacted, and this confined to Carn Brae, Cook's Kitchen, Doleath, and Tin-croft. On the whole, the prospects of the market are not of a very lively character, and unless some advance in the tin standards takes place (which does not seem very likely just yet) the market will, probably, remain just as it is at present, and it will take up the slack until the new shaft (*Vivian's*), and, judging from what this district has produced in the shape of successful mines, it would seem that these Illogan Mines are destined to follow in the wake of the now famous New Cornwall Mines, which are under the same management, and, we believe, are owned by the same proprietor. Capt. Harris, of the Great Wheal Vor Mines, reported most favourably on this property last week for a large shareholder, and, in fact, it would seem no two opinions exist as to the merits of the undertaking.

Thus Mr. Henderson is not so really a disinterested party as he would have it supposed, even with respect to Tharsis, whilst there is still deeper current calculated seriously to interfere with his impartiality; he has, it is said, not long since purchased, or provisionally purchased, the Aznalcollar Mine, between the Rio Tinto property and Seville, and the working of the Rio Tinto would probably render the profitable working of the Aznalcollar impracticable.

Having shown that Mr. Henderson is not a disinterested writer, and that the article complained of is not open to the grave charges he has made against it, we may refer to the Rio Tinto Company itself.

The present company took possession of the mines on May 23, and their engineers at once commenced working them, the advantage of which the company is already receiving. The enormous richness of the Rio Tinto property is well known, and it was not new information for Mr. Henderson to tell us that the Spanish Government incurred a loss by working it, but in this respect it was only in the same position as all other mining properties in Spain at the time of their resuscitation, which has taken place very gradually, after what may be called the dark ages of Spanish mining. The Fortuna, the Linares, and the Alamillos in the lead mining district of Linares, which have returned such large profits under Messrs. John Taylor and Sons' management as to add to even their reputation were worthless (except prospectively) and unprofitable when they came into their hands, and the Tharsis when taken up the French company was in no better position; but the unprofitableness of the properties was due only to the unmineral-like treatment they had received, and to the absence of the ordinary modern adjuncts to industrial enterprise in the shape of capital, means of communication, and so on. At Rio Tinto, as Mr. Forbes shows, there were 12 managers in one year, and they had no power to create the necessary facilities for transport by the making of a railway. Before a railway was constructed Tharsis was even more helpless than is Rio Tinto at present, and as soon as the Rio Tinto railway is made the quantity of mineral that can be sent down will be probably unlimited. And here the cost of the two railways may be noticed. Does Mr. Henderson's in his estimate of the cost of the Tharsis railway include the extra and additional amount they have paid since their railway was first opened, in order to bring it into a proper working condition? Taking the aggregate cost as compared with the Rio Tinto estimate, and considering that in the case of Rio Tinto the larger extraction of mineral has to be provided for, the difference is not very important, especially as the Rio Tinto estimates include a tunnel in the mine, and 50,000*l.* for the pier. The Rio Tinto, profiting by the Tharsis mistakes, will construct a line with excellent gradients, steel rails, and all materials of the best description, instead of a line with difficult gradients.

But the point in connection with the Rio Tinto Company which has been most strongly animadverted on is the purchase price, which has been most unfairly stated by the Tharsis Company in making the comparison. As we do not possess the Tharsis balance-sheet showing the amount actually paid for royalty, the position of the

THE NOVA SCOTIA GOLD REGION—No. III.

Mr. SELWYN* found great stagnation prevailing in all the districts which he visited, but, after enquiring into the cause, remarks:—The reason why two-thirds of the crushing power in the latter is standing idle seems at first sight somewhat inexplicable. It is evidently not the poverty of the quartz; neither is it, as I can vouch from personal observation, owing to any deficiency in the quantity which the veins, if properly worked, are calculated to produce; and we are, therefore, forced to conclude that it arises from the unskillful, wasteful, and improvident manner in which the business has ordinarily been conducted, creating general apathy, and utterly destroying the confidence of investors; and from the following causes, which are not in any way especially characteristic of Nova Scotia, but prevail more or less in every mining region of which I have any knowledge, particularly in the early years of their development:—

1.—The rash expenditure of capital in the purchase of mining rights respecting the actual value of which nothing is known with certainty.

2.—The hasty and inconsiderate erection of costly machinery for mining and treating the ores, before their quantity or their probable value has been determined.

3.—The attempts frequently made to enhance the value of the stock by declaring dividends, sometimes paid out of capital, but often by means of a process commonly known as "picking the eyes out of the mine," or, in other words, selecting all the rich material to secure a few high yields which are far in excess of anything likely to be the future average.

4.—The too common, almost universal, practice of devoting the whole of the net proceeds to the payment of dividends, and having no reserve to meet expenses when poor ground has to be worked through. This improvidence frequently necessitates the closing of a mine, and the abandonment of a property as worthless, which under a more judicious system would have become extremely valuable.

5.—The small size of the "areas" or claims, not as regards actual acreage, but in relation to the position and thickness of the veins. This necessitates a wasteful multiplication of shafts and plants of machinery for crushing and dressing the ores. In some districts in Nova Scotia these are out of all proportion to the actual requirements.

6.—The disregard of the natural features of the ground shown in locating the crushing and dressing machinery without reference to the easy delivery of the material from the mine, and the fall required for the perfect treatment of the ores, and for getting rid of the tailings. This want of foresight necessitates subsequent heavy outlay for re-handling the materials, all of which might be saved.

7.—The almost universal want of any appliances for saving pyrites and fine gold.

As indicating the probable value of some of the heaps of tailings to be obtained in all the older districts, Mr. SELWYN cites the analyses by Dr. T. STERRY HUNT of three samples which were collected by himself at Montagu, Renfrew, and Yarmouth, and which respectively yielded 5*lb.*, 2*lb.* and 5*lb.* ozs. of gold per ton, and he significantly adds: "Supposing the tailings to contain no more than one-half the above amounts, the value of the gold which is being annually lost is enormous, and the subject is well worthy the serious consideration of every mineowner in the country. This fact of the richness in gold of the arsenical pyrites of the Iodes in Nova Scotia is not new."

Proceeding further with his comments, the learned author states that at the Black Hill Mine, in Australia, a low yield of 2 dwt.s. 21*s.* grs. on the capital invested; the amount paid in dividends in eight years being 21,730*l.*; at Clunes the average yield in 1869 was 7 dwt.s. 8 grs., and in 1870, 4 dwt.s. 20*s.* grs. Many more instances, he remarks, could be given of yields far less per ton than the quantity now lost at every mill in Nova Scotia, having sufficed, under careful management, to give a fair profit to the adventurers. These results are due to the practical and intelligent application of the lessons taught by experience; and, if this experience is utilised, and as intelligently applied in Canada as it has been in Australia, there is no reason why equally satisfactory results should not be achieved.

* Notes and Observations on the Gold Fields of Quebec and Nova Scotia. By ALFRED R. SELWYN, F.G.S., Director of the Geological Survey of Canada, &c., &c. London: Trübner and Co., 57 and 59, Ludgate-hill, E.C.

THE THARSIS AND RIO TINTO COMPANIES.

Argument is acknowledged to be impracticable when there is no single point upon which the disputants agree, and Mr. W. Henderson, having characterised as "a most extraordinary article, full of gross misstatements and unwarrantable imputations"—an article which appeared in the *Mining Journal* of July 26, whilst information since received from Spain confirms every essential statement which we made—our difficulty in discussing the matter with him will be generally appreciated. But we willingly make one or two corrections of unimportant errors into which we had inadvertently fallen. In the first place, we are now informed that Mr. Henderson is the proprietor of a small chemical works in Ayrshire, although we formerly only understood him to be largely interested in the success of the Tharsis Company; and, secondly, it seems we were in error in stating that at 9*s.* 10*d.* per unit for copper, and 7*d.* per unit for sulphur, the Rio Tinto company could not realise profits.

Thus Mr. Henderson is not so really a disinterested party as he would have it supposed, even with respect to Tharsis, whilst there is still deeper current calculated seriously to interfere with his impartiality; he has, it is said, not long since purchased, or provisionally purchased, the Aznalcollar Mine, between the Rio Tinto property and Seville, and the working of the Rio Tinto would probably render the profitable working of the Aznalcollar impracticable.

Having shown that Mr. Henderson is not a disinterested writer, and that the article complained of is not open to the grave charges he has made against it, we may refer to the Rio Tinto Company itself.

The present company took possession of the mines on May 23, and their engineers at once commenced working them, the advantage of which the company is already receiving. The enormous richness of the Rio Tinto property is well known, and it was not new information for Mr. Henderson to tell us that the Spanish Government incurred a loss by working it, but in this respect it was only in the same position as all other mining properties in Spain at the time of their resuscitation, which has taken place very gradually, after what may be called the dark ages of Spanish mining. The Fortuna, the Linares, and the Alamillos in the lead mining district of Linares, which have returned such large profits under Messrs. John Taylor and Sons' management as to add to even their reputation were worthless (except prospectively) and unprofitable when they came into their hands, and the Tharsis when taken up the French company was in no better position; but the unprofitableness of the properties was due only to the unmineral-like treatment they had received, and to the absence of the ordinary modern adjuncts to industrial enterprise in the shape of capital, means of communication, and so on. At Rio Tinto, as Mr. Forbes shows, there were 12 managers in one year, and they had no power to create the necessary facilities for transport by the making of a railway. Before a railway was constructed Tharsis was even more helpless than is Rio Tinto at present, and as soon as the Rio Tinto railway is made the quantity of mineral that can be sent down will be probably unlimited. And here the cost of the two railways may be noticed. Does Mr. Henderson's in his estimate of the cost of the Tharsis railway include the extra and additional amount they have paid since their railway was first opened, in order to bring it into a proper working condition? Taking the aggregate cost as compared with the Rio Tinto estimate, and considering that in the case of Rio Tinto the larger extraction of mineral has to be provided for, the difference is not very important, especially as the Rio Tinto estimates include a tunnel in the mine, and 50,000*l.* for the pier.

The Rio Tinto, profiting by the Tharsis mistakes, will construct a line with excellent gradients, steel rails, and all materials of the best description, instead of a line with difficult gradients.

But the point in connection with the Rio Tinto Company which has been most strongly animadverted on is the purchase price, which has been most unfairly stated by the Tharsis Company in making the comparison.

As we do not possess the Tharsis balance-sheet showing the amount actually paid for royalty, the position of the

companies can only be compared by estimating for each on the same basis, and working out the result by the Rule of Three system advocated in Mr. Henderson's letter. We do not ourselves advocate this principle of comparison, but adopt it as best suited to that gentleman's views. Let the royalty be estimated at one-fourth the profits distributable as dividends, and it would follow that the Tharsis Company would pay a sum of 90,000*l.* per year royalty, or 1,800,000*l.* during a 20 years' lease. This amount would have to be added to the sum actually paid in estimating the purchase price of the Tharsis property, which being merely leasehold, diminishes in value at the expiration of the lease; hence, perhaps, the large writings off to which Mr. Henderson refers.

Assuming, by the adoption of a similar process, that on the completion of the Rio Tinto Railway, the royalty would be represented by one-fourth of the estimated distributable profits (835,000*l.* per annum), 20 years' Rio Tinto royalties at 208,750*l.* per annum would be worth 5,175,000*l.*, the difference between that amount and the sum payable as purchase money representing extra profits received or premium paid by the Rio Tinto Company, as the case may be. Thus by Mr. Henderson's showing the Rio Tinto Company obtained the transfer of the property, value for value, upon more favourable terms than did the Tharsis.

But the comparison does not stop here, for whilst at the end of the Tharsis lease their property will be absorbed (unless a new lease can be obtained), the Rio Tinto will long before that time have their property free of all encumbrance for ever, and be then in possession of a freehold property capable of returning nearly 1,000,000*l.* per annum. Copper has already been received by the Rio Tinto Company from the mine, and precipitate made by the company since possession was taken is now being shipped, so that a fair earnest is given that the want of energy which so seriously interfered with the realisation of profits by the Spaniards will not continue under the present management.

We have felt called upon to make the above remarks after the uncalled for attack made upon our article by Mr. Henderson; and here, as far as we are concerned, the controversy must end.

MINING ENTERPRISE IN BOLIVIA.

The highly profitable character of silver mining in South America is proverbial, and enormous fortunes have frequently been realised by individuals who have commenced with comparatively limited funds available as working capital, whilst in Chile alone there are at present between 30 and 40 companies in profitable operation, and in the neighbouring countries silver mining is likewise recognised as amongst the most important national industries. The CARACOLES SILVER MINING COMPANY, to the incorporation of which with a capital of 75,000*l.*, in shares of 1*l.* each, reference was made in last week's Journal, is the first which has been formed in England for purchasing and working mines in the already celebrated mineral district of Caracoles, from which large quantities of ore are brought to Liverpool weekly by every Pacific Steam Navigation Company's steamer. With regard to the company in question, it appears that since the commission sent out by the Bolivian Trading Company last year returned from Bolivia it would seem that an establishment has been erected in the vicinity of the mines for the amalgamation of ores, so that from the last advices it appears that "During the first four months of the present year there had been exported from Caracoles 18,790 kilos. of bar silver" (of the value of about 170,000*l.*), and this is in addition to the large quantities of ore exported during the same period.

The district to which the company proposes to devote itself appears to afford an exceptionally attractive field for enterprise, for a competent authority, writing from Valparaiso, says:—"The riches of Caracoles are far surpassing anything I ever contemplated, ores of 50 to 70 marks (400 to 560 ounces) are very abundant, and any quantity can be produced; the difference in cost alone by a railroad as regards the mines will pay an amortization in five years." The terms of purchase are extremely favourable, since the vendor receives but 5500*l.* in cash, and the remaining 15,000*l.* in fully-paid shares; and even this payment does not all represent premium, for a considerable outlay has already been made, of which the company will have the benefit. The mines of the company have been selected under the personal inspection and advice of Mr. Henry B. Stevenson, the company's resident engineer at Caracoles, and of Mr. de Bussy, of the Ecole des Mines, Paris, specially

upon the bed-rock. It is hardly possible to obtain full and accurate returns of the values washed out; but the expenses are estimated at one-fourth of the gross returns. A large expenditure of money and labour has been put out in opening the property of the Blue Tent Consolidation, and it is important to remember that this expenditure has resulted in placing this property in a position far more available for its future owners than if it were now in a state of nature. From a careful computation, based upon realised results, the net value of the gravel is estimated at \$41,256,643. Heretofore the miners on this property have had at their disposal only a limited supply of water in their own ownerships. They have supplemented this by the purchase of water from the South Yuba Canal Company. The amount of water available is, however, by the use of a moderate amount of working capital, capable of almost indefinite extension. It appears safe to estimate a flow of 3000 to 4000 in. of water for eight months in the year. This would, at 30 cents net profit per inch afford a return of from \$200,000 to \$250,000 net profits per annum, or from 20 to 25 per cent. upon \$1,000,000.

To obtain these results it will be requisite to provide a working capital of 25,000\$, which is the capital of the present company.

VIENNA EXHIBITION—No. III.

THE DUBOIS ROCK-BORER.

Of all the apparatus for mining displayed in this Exhibition none attracts greater attention than the Dubois and François rock-drill. No one can make an untried and novel invention wear a plausible garb, and win the eye of the beholder, better than the French Puffery, which has its occasional outbursts in this country, is with them elevated to the rank of a science; it is, therefore, necessary to receive with great caution their descriptions of the wondrous things which they promise to accomplish. But in the machine here exhibited there are actual results of some 18 months work to fall back upon in the mines at Marihaye, Anzin, Rosschamp, in the collieries at Seraing, and in many metalliferous mines in Austria and Germany. This machine is entirely unknown in England, for on examining copy of the order book of the firm we found that the markets were confined to Belgium, France, Germany, Austria, and to Switzerland. To see one of the most notable examples of this boring apparatus in actual work we visited the famous tunnel now in course of construction through the Alps, at the St. Gotthard pass. A few miles above Amsteg, a village some 15 miles from the head of Lake Lucerne, the romantic glem is all aglow with miners, wagons, and smoke. This gigantic piece of engineering has been commenced both on the Swiss and Italian sides, to meet in the middle: the entire length will be about 7 miles. The material is a grey granite, very similar to the Cornish variety used in Penzance for building purposes. On the Swiss side about 100 yards have been driven. This apparatus has worked here about 12 months, and with the most satisfactory results. Each steel point penetrates the granite at the rate of about 3 to 4 in. per minute. An advantage is here enjoyed from the circumstance that the mountain stream, the Reus, running past the St. Gotthard Tunnel, is employed as the motive-power to compress the air; and as the water supply is abundant, the apparatus is worked at a pressure of about five atmospheres, which is far higher than is found desirable for the sake of economy when steam-power is used to work the compressor.

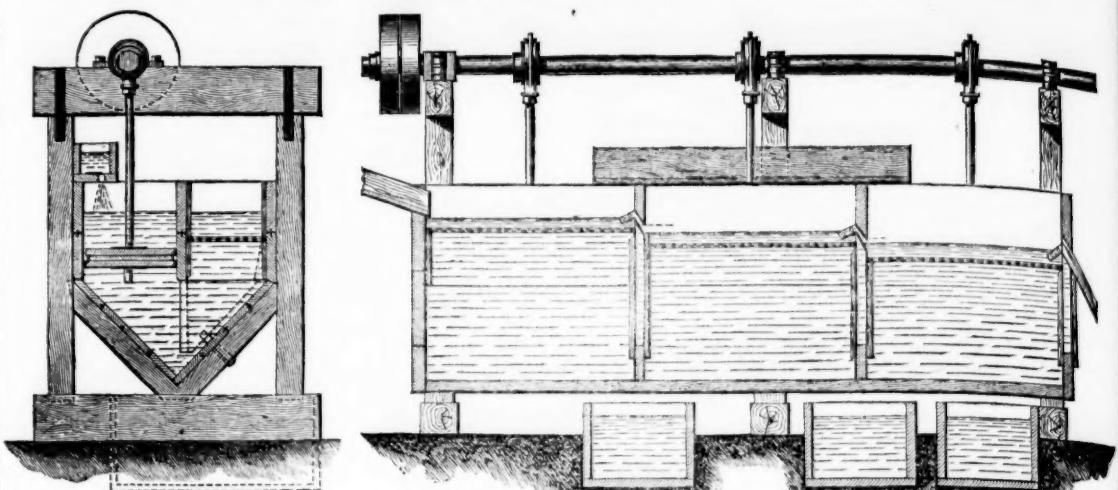
In our last article we described one of the best forms of machine for compressing the air, we shall, therefore, confine our remarks at present to the actual perforator. At the first glance the apparatus is seen to consist of four parts—the long arms which are launched against the rock, the valve box, the cylinder and piston forming the body of the machine, and the stout screwing apparatus beneath which serves to propel the points forward as the holes deepen. The valve box is furnished at each end with a small cylinder, one a little larger than the other. A piston rod runs through this valve box, and connects the two unequal discs working in the cylinders. Connected with this piston rod, also, is the slide valve, which opens or cuts off communication with the percussion cylinder. On the admission of the compressed air into the centre of the valve box it presses in opposite directions against the two pistons, with pressures varying with the difference of their squares. The larger disc is, therefore, moved, opening as it does so the slide valve, and admitting the compressed air into the percussion cylinder, and immediately the piston in this cylinder, which passes through the end, and carries at his extremity the steel punch, is hurled with force against the rock. The pressure of air being thus withdrawn from the larger cylinder in the valve box acts on the smaller piston, but with a relatively slower motion, admits the air to the other end of the percussion cylinder, and brings the long piston back to its original position. From this arrangement it results that the forward blow is very rapid, and the return stroke comparatively slow—a condition of the utmost importance to the economic working of a percussive machine. An enlarged boss on the piston provides for the release of the charge of air by raising a lever, which works a valve. At the hinder portion of the apparatus two small pistons, one on each side of the main cylinder, are alternately raised and lowered, by admitting a small portion of air, and these, by means of a toothed wheel and two catches, determine the regular and uniform revolution of the drill. This little piece of mechanism is admirably fitted to fulfil its purpose, and takes very little power to work it. The main cylinder is bronze, and is 3 in. diameter, the piston 2 in. The whole length of the machine is 24 yards, and the weight is about 4 cwt. The machine on exhibit here is the Machinen Halle, where it operates occasionally on a huge block of granite brought from Mount St. Gotthard. The propelling screw, which is fixed underneath, is worked by hand, and thereby keeps the action of the machine under the control of the workmen, and provides means of varying the rapidity and force of stroke according to the material acted upon; the hard quartzose rock, for example, requiring shorter and quicker blows, whilst the freestone of the Liège coal fields admits of a longer stroke.

In the excavations in schist and sandstone of the Seraing districts, in Belgium, these machines have been worked at a pressure of 2 to $\frac{1}{2}$ atmospheres, which is found by experience to be the most economical. The rate of perforation ordinarily attained in Belgium is in hard freestone 1 $\frac{1}{2}$ in. per minute, in the schistose rocks 5 to 7 in. per minute. In employing these machines in the collieries, and other subterranean galleries, they are mounted on wooden carriages, which fit on the ordinary rails of the tramway. These carriages are made chiefly of wrought-iron, and are of very simple construction. Screws serve to fix and vary the inclination of the perforator. The carriages are narrower at the front end, to admit of two or more machines being brought to bear upon the same face of work.

A notable feature in these drills is that in the centre of the section, or face, to be attacked a hole is bored of about 4 in. diameter, whilst all the rest are about 1 or 1 $\frac{1}{2}$ in. Three or four of the smaller holes are arranged round about this larger and central one—say, 4 or 5 in. from it. These holes are drilled to the full depth, but a few inches still further from the centre three or four holes are bored about half the distance. The object of this arrangement is to enable the small holes round the centre, which are the first to be fired, to blow more freely by finding vent into this large central hole. The shorter holes are intended to clear out the front portions which may be left by the central shots. The holes next further from the centre are then fired, and so on to the periphery of the section.

In a heading at Marihaye Colliery, in Belgium, 7 ft. 6 in. high and 7 ft. wide, there are four machines working, with sufficient room for the men to move freely about them. They rest on a carriage, whose extreme limits are length 4 yards, height 5 ft., and breadth 4 ft. 2 in., and the total weight about 5 tons English. This runs on the ordinary rails of the colliery, which are indeed of a very slight make, running as much as 6 yards to 1 cwt. Four men work the apparatus. Two behind attend to the admission of air, and by means of a hand-wheel work the screw which propels the apparatus forward as the drilling proceeds, and they adjust the packing of the carriages to each change of position. The two men in front indicate the position of the holes to be driven, change the steel heads when necessary, add water when needed, &c. The usual length driven here through schistose rocks is 5 ft. in about six hours. This heading is 25 ft. 6 in. long, having a total length of 2250 ft. in that

ORE DRESSING MACHINERY.



ORE-DRESSING MACHINERY—No. XXVII.

CONTINUOUS SLIME JIGGER.—The attempts which have been made to jig slimes through a bed of coarse-grain ore have not been attended with such an amount of success as could be desired. The unevenness of the surface of the bed and the delicate nature of the operation constitute two of the chief difficulties. In the one case the slimes frequently cake, and derange the operation; in the other, if too much water is added the grains of ore are carried off with the sand. For the purpose of jiggling slime sand it is necessary that it should be prepared by passing it through boxes, each of increasing capacity, and freely supplied with water, and when the sand is discharged into the jigger it should be subjected to a short, quick stroke, just sufficient in its effects to maintain the grains apart, according to the order of their density.

In the jigger illustrated the sieves are set one below the other, and divided by a receiving chamber. The sieve bottom consists of

two plates, perforated with holes about 5 millimetres in diameter. Between these plates is a sheet of horsehair or cloth, sufficiently coarse to allow of the passage of water, yet fine enough to arrest the descent of the ore grains. Water is carefully introduced into the piston boxes from a short launder, and when the length of stroke and speed of piston are properly adjusted, the ore grains can be passed into the receptacles, the sand to the waste wagon. From time to time the stuff lodged in the receptacles is drawn through plug holes into catch-boxes. The piston speed of slime sand jiggers and length of stroke can only be determined by the dresser, but if the pistons be a loose fit the stroke may be confined to 1 in. and number 300 per minute. The general dimensions are—Hutch, length 8 $\frac{1}{2}$ ft., depth 30 in., width 30 in.; sieve bottoms, length 30 in., width 12 in.; width of receiving chambers, 3 in.; depth of first sieve-trap of hutch, 6 $\frac{1}{2}$ in.; drop of succeeding sieve bottoms, 2 in.

Coleman-street-buildings.

JOHN DARLINGTON.

gives an average for the six hours of 6 $\frac{1}{2}$ in. per minute. This, however, is faster than can ordinarily be reckoned upon. The necessary rigidity of the arrangement is attained by fixing the carriage against a thick plank, and firmly pressing by means of a screwjack. Wedging against the roof was at first adopted, but for percussive machines this was not found to answer so well, and is now abandoned.

A modification of this machine is used for sinking shafts, which is said to be very economical, especially in cases of sinking through hard stone, such as green rock and trap; and in this view we think it would be valuable in our English coal fields, and still more so in metalliferous mines, where months and years are often spent in driving cross-cuts and headings, till capital and patience are exhausted, and the concern falls to ruin, or is patched up under a new name, to repeat the same process with fresh victims.

FOREIGN MINES.

FLAGSTAFF (Silver).—Telegram: Ore, 5400\$; bullion, 23 tons; one furnace, four days, 6900\$.—Signed: Maxwell. [This is an exact copy of the telegram, and the board interpret that the aggregate of ore and bullion realised 6900\$.]

LAST CHANCE (Silver).—Telegram from Mr. Maxwell as to the produce of the furnace for 13 days' smelting.—Maxwell to Last Chance: Company.—From July 26 to Aug. 9, 145 tons; bullion, 5900\$.

TECOMA (Silver).—Telegram from the superintendent of the mines:—Furnaces started 6th; running well; will wire week's result 14th.—Signed: Maxwell. —13th.—Truckee telegraphs two furnaces one week, 40 tons bullion, value per ton 150%—Maxwell.

WINAMUCK (Silver).—Telegram received on Aug. 11: July products, 224,955 lbs.; net, 865745; eight days one furnace, 3600\$.

RICHMOND CONSOLIDATED.—Cablegram from the mine at Eureka:—Hull, London: Week's run, 847,000\$; new furnace ready with in 30 days.—Probert

RUBY CONSOLIDATED.—Favourable accounts of the mines were received from San Francisco last Wednesday, dated July 14: Lord Byron: This shaft is down 220 feet, struck ore which assays per ton—silver, \$76.55; gold, \$2.50; total, \$89.55, and 14 per cent. lead. The miner is following the ore, which pitches to the bottom of Valentine. Dunderberg: The engineers are putting the gearing in place; hoisting to begin July 22.—Eldorado: Preparations are being made to ventilate, which would be completed on July 22, previous to raising ore. The ore deposit looks like a ledge. The assay of the ore is—silver, \$45.55; gold, \$21.35.—Bullwhackie: Main shaft down 310 feet. The engineer expects to be soon through the porphyry. Both furnaces running well.

RIO TINTO.—The directors are advised that 74 tons of copper have been received at Liverpool from their mines.

MALPASO GOLD WASHING.—Telegram from the superintendent:—We have cleaned up, after a run of 42 days, during which time we have washed 46 hours; the gross returns are \$1000 (200%). We have been very short of water all this run.

DON PEDRO NORTH DEL REY (Gold).—Telegram from Lisbon:—Produced for June, 2553 ots.; weighed to July 18, 1032 ots.

JAVALL.—Capt. Sohns, July 7: The dry season had been the longest ever known, and he had only been able to commence running the mill on July 3, and would send the first remittance this season by the next mail. New machinery still in course of erection.

BIRDSEYE CREEK (Gold).—Telegram from their superintendent:—We have cleaned up Uncle Sam claim after a run of 30 days. Gross returns, \$7000. Profit, \$5500. Tunnel cost, \$750.

G. S. Powers, July 20:—I am still washing in Uncle Sam claim with one head, buying 250 in. from South Yuba Company. I shall then move the main ditch of Uncle Sam ground entirely by taking it about 160 rods in Red Dog branch, thence in iron pipes back to main ditch. I am enlarging this piece of ditch at an expense of \$1 per rod, extra pipe 15 ft., at \$2.30 per foot; moving bulk head and other costs appertaining to it, will make about \$200 more, the whole not to exceed \$600, which will ensure another season's washing with one head. The tunnel is moving ahead at about its usual speed, and I hope to have it finished by the time before mentioned. I have ordered lumber for floor, 4 ft. 4 in., which will leave floor 4 ft. in the clear, which I think about right for working the mine to the best advantage, and saving the gold.

CHICAGO (Silver).—W. S. Godbe, July 25: The importance of gaining depth and making fresh explorations, thus keeping ore reserves as large as possible, is, I am assured, no less appreciated on your part than on my own. The last of the machinery for the new furnace was on the ground some days since, and the early completion of the works is no longer a matter of the least uncertainty. The rope-way will take a little longer. The profit on 1000 tons of ore will, I think, be sufficient to pay 6 per cent. for one-quarter's dividend, and there is good reason to believe that but little over a month will be required to smelt that quantity with one stack.

ELDORADO (Nova Scotia).—Capt. Sprague, the mine captain, under date July 25, writes:—We are opening out a large quantity of quartz west from the Mitchell shaft: In the early part of August we intend stamping it to test its value, as also from the Hattie vein. We have two tunnels driving west from the Mitchell shaft, in one the quartz shows free gold. On the 20th I reported 103 ozs. of gold, and hope to get a good return for the month, there is now 177 oz. of melted gold in hand. The after treatment of tellurides is one of great importance, particularly so when the quartz contains the sulphuret of gold, and is mixed with iron pyrites, &c. In this district, as a rule, the quartz contains only free gold, and by careful stamping and attention to the copper plates outside, but little gold is wasted. The difficulty is to erect a cheap and simple apparatus, and to get a man to do it. I am hoping to erect one soon and to get the man.

HORNACHOS.—John Hancock, Jun., Aug. 6: Descuidados Mine: We have made good progress in cutting the cistern plat, &c., in the past week. I hope to have the cistern and everything ready to begin to sink by the end of the week. In cutting out the side we have broken some very good ore in the past few days. We have had a great deal of ground to take away to make the plat and ent ground for bearers and cistern, consequently it has taken up plenty of time. The shaft, when commenced, will be sunk in a ledge that will give good profits when opened out. The engine and machinery are working well. Employed this week at surface, 45 men; and 15 underground.—Afortunada Mine: In the 20 ft. level, south of No. 1 shaft, the ledge is rather small in the back part of the end; in the bottom it is 1 ft. wide, composed of copper pyrites, muriacite, quartz, and silver-lead ore, worth of the latter 5 cts. per fathom. In the 20 ft. level, north of No. 1 shaft, the ledge is 1 ft. wide, composed of carbonate of lime and silver-lead ore, worth 10 cts. of ore per fathom—a fine-looking ledge. There has been very little improvement in the air in the past week. The air pipes have been delivered on the mine, and divide the shaft; after this is done we shall be able to get on faster with the driving.

No. 2 shaft, from surface: The weather being so hot, and no wind, makes the air rather bad at times. The ledge has improved in the last few days, now worth 1 $\frac{1}{2}$ ton per fathom; this shaft is going down in a valuable piece of ore ground.—No. 3

as I before informed you, this shaft is for the men from No. 1 shaft to work in when the air is bad in the ends. If we should strike ore as soon as we did in No. 2 shaft we shall quickly be able to make good returns, at comparatively small cost. Number of men employed underground, 18; and on surface, 6. In my report of July 30 I said we should raise in the 12 weeks ending Oct. 15 16 $\frac{1}{2}$ tons from Descuidados, and 25 tons from Afortunada; after that time we shall be able to raise considerably more than that, if the ledges continue to open out as they are at present. The above ore will average about 100 ozs. of silver per ton of 20 cts.

EXCHEQUER (Gold and Silver).—L. Chalmers, July 21: During the past week we have put in the platform in the 100, blasting out 4 ft. 4 in. on one side of the shaft to make room for it. We have also drilled 3 ft. 3 in. towards the ledge. I have already proved that the richest shoots of ore are ten feet in the direction of the new engine shaft, and a few feet more will land us in the ledge. The water is decreasing. Last night the body of the boiler arrived by our own team, and as I write the other team, with the balance, comes in sight. Already the men and labourers have commenced the brickwork for setting, and the carpenters have almost finished the frame for the addition to the engine-room. The mason's boiler is set, and the attachments completed. I shall have steam on, and commence running, whether it is roofed in or not. Will reconvene on Wednesday.

I. X. L. (Gold and Silver).—L. Chalmers, July 21: Since my last report I have cut ground for the water tank, and part of the plat or station at the 200'. I expect to finish the station next week, after which will commence driving to the ledge.

CHONTALES.—Mr. Smeddle (July 6) reports:—During the past month we have sent to the stampa 1200 tons of ore, from which we have obtained 303 ozs. of gold, being an average of 5 dwts. per ton. From the aratre we have obtained 22 ozs., making a total of 325 ozs. We value the gold obtained at \$40. Our total expenditure for the month has been 70%, leaving a profit of 13%. The above cost includes the sum of 1390 charged to construction account. We have had a few heavy showers during the past month, but are still very short of water. I expect, however, soon to have a surplus, as this month has hitherto been considered the wettest in the year. In San Sebastian Mine the ledge has improved, and is at present about 4 ft. wide, and worth about 6 dwts. per ton. The heavy portion of the stone boulders has been delivered on the mines, and will now be erected as soon as possible. Some delay has occurred in the erection of the new stamps on account of the difficulty in forwarding machinery from the coast, but the agents informed me by the last mail that the river had risen considerably, and they expected to be able to forward everything in a few days. The health of the establishment is good.

D. Tonkin, July 5.—Report of Santo Domingo Mine for June: No. 3 level, west of cross-cut, has been driven on the ledge 16 varas; ledge 5 ft. wide, worth 2 bats of gold per ton. The stopes in the back of No. 1 level, east and west of cross-cut, have produced 64 tons of quartz; ledge about 5 ft. wide, and worth 3 $\frac{1}{2}$ dwts. of gold per ton. The total number of tons of quartz sent to the mill is 701.

BUNKER HILL (California).—W. L. Palmer, July 20: Our work still progresses most satisfactorily. You ask me to give you figures as far as practicable. It may be interesting to you for me to recapitulate the yield of our ore in the mill in the different levels. The 70 ft. level, average yield of all the rock worked in the mill \$35 per ton (we have taken out over \$150,000 here, and have standard left). The 170 ft. level, south drift, \$12 per ton; east fork, \$40 per ton. The 200 ft. level, average yield in the mill \$27 per ton. In the mill, taking the whole amount worked, at \$12.55 to \$35; we have a large amount of high grade ore in this level, and we have taken ore out from here to sell, we are confident, from \$25 to \$50 by the hundred of tons. Some of the 270 ft. level ore will run into the thousands, and this will bring up the average yield of the whole. The great mass will run from \$12 to \$100 per ton. It is difficult to estimate accurately the value of ore in a vein like ours. Bear in mind that it is a very large vein, over 100 ft. thick, and the ore is of a very rich grade, but you cannot go far wrong if you take the above yields as actually shown in our present mill—\$12, \$27, \$35, and \$40. The Keystone Mine, within 1300 ft. of us, also on the Mother ledge, has yielded millions of dollars to its owners, actuallying 100 per cent. per year for the last eight years; and the Hayward Adm. is on the same vein with our mine, has yielded nearly a million a year (\$800,000 a year to be accurate) for the last 14 years. One of these (the Keystone) is down 1350 ft. in depth, and the latter (Hayward Adm.) 2000 ft. down; both are providing in depth, while we are down 430 ft., and our rock has yielded on an average in our own mill as well as either of the above, which are two of the most famous gold mines in the world, as you are well aware. The average cost of mining and milling ore in both of these mines is \$5 per ton. All of our yield over \$5 may set down as net when we our fully under way. The mine and mill are looking as well as ever.

MENZENBERG.—R. K. Roskilly, Aug. 9: Since the masons completed the building in of the boiler we have been busily engaged in fixing steam pipes, &c., and shortly we shall have these in working order. We lighted the fire yesterday in the boiler, which burnt well, and we intend to get up steam, so as to start the engine next week, after which all efforts will be exercised so as to forthcoming water.

Aug. 14: We are getting on very well with all our work, and started the engine yesterday and worked it for about two hours to prove the different parts of the machine. We are making good progress in sending down our pit-work, I hope to have all in order in about three or four days.

WEST CANADA.—July 21: Copper Bay: The stope in the bottom of the 80, west of Palmer's shaft, will yield 3 tons of copper ore per fathom, and the stope in the back of this level, east of the shaft, will also produce 3 tons per fathom. In the bottom of the 35, west of Bray's shaft, we have a stope yielding 2 $\frac{1}{2}$ tons per fathom.

ALAMILLOS.—July 30: The ledge in the 60 fm. level, west of Rafael shaft, is open, and much easier for driving than it was. In the 50, west of San Francisco shaft, the ledge is large and regular, with good stones of ore. The ground is very hard for driving in the 50, east of La Magdalena shaft. The 50, east of Taylor's engine-shaft, is of a promising appearance, and contains good stones of ore. The 85, west of Taylor's engine-shaft, is opening fairly productive ground, yielding 1 ton of ore per fathom. The ledge in the 50, west of

lode (Martin's) is worth 8/- per fathom.—Cobbler's: In the 120 west end the lode (Martin's) is worth 8/- per fathom.—Cardozo's: In the 100 west end the lode (north) is worth 8/- per fathom. In the 90 east end the lode (north) is worth 8/- per fathom. In the 80 east winze the lode (north) is worth 12/- per fathom. In the 80 west end the lode (north) is worth 16/- per fathom. In the 70 east end the lode (north) is worth 10/- per fathom. In the 70 west end the lode (north) is worth 8/- per fathom. In the 60 west end the lode (north) is worth 20/- per fathom. In the 55 east end the lode (north) is worth 15/- per fathom. In the 55 west end the lode (north) is worth 8/- per fathom. —Crutchley's: The ground is still rather hard sinking, and although kept on considerably only progresses at a moderate speed. We sold yesterday, to the Tamar Smelting Company, 8 tons 6 cwt., 2 qrs. 17 lbs. of black tin; the tin realised 62/- 15s. 7d., being 14/- 10s. per ton. No other changes to report.

SOUTH PENCARNE.—S. Bennett's, W. Higgins, Aug. 9: The lode in the 70 west looks promising, and produces some tinstuff mixed with good stones of copper ore. The 60 east is getting near the cross course, without much change in any way as yet. The 50 east is worth 15/- per fathom. A rise above this level is worth 12/- per fathom. The 50 west is worth 7/- per fathom. The 45, east of shaft shop, is worth 10/- per fathom, and a winze below this level 10/- per fathom. The 30, east of flat-roof shaft on the north lode, is worth 7/- per fathom, and the same level west 5/- per fathom. The various stokes throughout the mine are just as last reported.

PENHALLE WHALEY TOR.—W. H. Martin, Aug. 11: We are forkling the water with good speed. The long 16 fm. level is drained, and 2 ft. below. We are using every effort with economy to carry out the work to drain the water. The fixing of the pitwork in Holroyd's shall be pushed on with the utmost dispatch. After the latter work is completed we shall then fork to the bottom in a short time, and be in a good position to sink the shaft to the junction and extend levels on the large lode we intersected at the 170, where we expect good courses of tin.

PENNERLEY.—W. T. Harris, J. Delbridge, Aug. 13: Potter's Pit: The sinking below the 45 is making satisfactory progress, and we hope to reach the 55 by the time stated. The lode in the winze sinking below this level has much improved, now worth 3 tons per fathom, and very promising. The winze in the 35 is going down in a profitable piece of stoking ground; the lode is worth 1 ton of lead per fathom. In the cross-cut driving north, in the 25, we have just intersected the lode, and broken some nice stones of lead, but not having cut through it to the north wall cannot say the value until next week. Other points throughout the mine are the same as last reported.

PENRITHSHUR CONSOLS.—J. Kendall, J. Michell, Aug. 14: Since our last report we have no change worthy of notice, all our points of operation being quite as valuable. All surface work is progressing satisfactorily.

PERRAN CONSOLS.—J. Nance, Aug. 13: Hallett's Engine-Shaft: There has been nothing done in the bottom of the shaft during the week, the men having

been engaged in taking out the planking that was necessary for drawing with the kibble and putting in skip-road, which will be completed for working by Thursday next. In the 30, driving west of engine-shaft, the lode is 2½ ft. wide, worth from 4/- to 5/- per fathom; water issuing from it very strong, and from appearances we look for further improvement. In the 20, driving west of engine-shaft, the lode is looking very promising, being 3 ft. wide, and worth 4/- per fathom; the ground is getting more settled, and the lode is let out freely. Flat-Rod Shaft: In the 40, driving both east and west, the lode is further improving in size, yielding some good work for the stamps; it is 3½ ft. wide, worth 4/- per fathom. In the 30, driving east of shaft, there is not any change to notice since the last report; the lode is worth 5/- per fathom. The winding cage is erected in readiness to draw, and will be set to work in a day or two.

PHENIX (Silver Lead).—R. Pryor, E. Adams, Aug. 12: The shaftmen have cased and divided the engine-shaft from the 50 to the 60 fm. level, and our steamer is hauling from that level. The lode in the 60 fm. level, driving south of engine-shaft, to 16 men, at 160s. per fathom; this drive has been resumed in order to prove the western section of the mine. The 24 fm. level, to drive east of engine-shaft, to 16 men, at 180s. per fathom; the lode in the present end is 2 ft. wide, composed of mudi, blonde, and occasional stones of lead ore, but not sufficient of the latter to value. A cross-cut to drive north in the present end of the 12 fm. level, east of new shaft, to two men, at 160s. per fathom; the part of the lode we have been carrying being very small, and bearing too much south, I have placed the men to drive a short cross-cut to prove if there be any lode stretching north. A stop 50 fathoms east of the new shaft, to six men, at 80s. per fathom; the lode is worth from 15 cwt., to 1 ton of lead ore per fathom. A stop east of the cross-course to six men, at 80s.; the lode is worth from 15 cwt., to 1 ton of lead ore per fathom. The cross-cut north of the 12 fm. level towards the north lode, to four men, at 200s. per fathom; the ground, if any difference, is a little more favourable. The adit level to drive east of cross-cut, by four men, at 150s. per fathom; the lode is composed of mudi, blonde, and lead ore, producing 0; the latter full 1 ton per fathom. The same level, to drive west of cross-cut, to four men, at 150s.; the lode here is not quite so large as in the eastern end; worth ½ ton lead ore per fathom, with indications for improvement. We have now ample water, our machinery is in good working trim, and we are pushing on with drawing and dressing, preparing for another sampling.

PRINCE OF WALES.—J. Gifford, F. Phillips, Aug. 12: The lode in the 90 west is from 4 to 5 ft. wide, and worth from 18/- to 20/- per fathom for copper and tin. We have effected a communication between this level and the 77 by a rise on the cross-course just behind the end, which has opened up ground for stoking and given good ventilation. A stop east of rise is worth about 15/- per fathom. In the 90 east no lode taken down this week. The stop in back of the 77 is worth 15/- for copper. In the silver lode we have holed to the main shaft, and shall now begin to stop the bottom of the level on the branch we have driven through, which is yielding some work, and likely to continue in depth. We have about 100/- worth of silver already broken.

RESTRONGUET TIN STREAM.—Aug. 13: The ground in the deep level is not so hard, and the men are making fair progress. The No. 1 end driving north contains about the same as last week; the gravel is 15 in. thick. The No. 2 end is without change; the gravel is about 1 ft. thick. In the air level driving west from No. 1, opposite the first air level, the gravel is 18 in. thick, of good quality. In the cross level driving south from No. 1 air level, 13 fms. east from No. 1, the gravel is 3 ft. thick, of fair quality. The level south from No. 1 pass is driven 20 fms. through good tin ground, but to-day we have old workings on one side of the level. In the stripping ground west from No. 2, in No. 2 air level, the gravel is 15 in. thick, of fair quality. In the stripping ground east from No. 1, in the first air level, the gravel is 1 ft. thick, of good quality.

ROMAN GRAVELS.—Arthur Waters, Aug. 14: The mine is looking as usual. We sampled to day 200 tons No. 1 and 30 tons No. 2 quality lead ore, for sale next Tuesday.

ROSEWARNE UNITED.—J. James, August 13: We have dropped the pumps to the 34, and hope to drain the level this week. We are in good working order, and hope to make good progress in draining the mine.

SOUTH CARN BREA.—W. Rich, J. Knottwell, Aug. 12: The lode in the 150 end east is yielding stones of grey copper ore and mudi, and is looking likely to improve; there has been a slight increase of water in this end during the past few days. The lode in the bottom of the engine-shaft is not quite so large as it has been. There is nothing new in the 140 fm. level cross-cut north. The lode in the bottom of the 130 east is worth 50/- per fathom for copper and tin. Three stops in the back of the 130 are worth 7/-, 12/-, and 15/- per fathom respectively.

SOUTH CONDURROW.—J. Vivian and Son, W. Williams, Aug. 14: King's shaft is now 4½ fms. below the 93 fm. level, in the granite, the lode being to the south, but close at hand, and branches dipping through the shaft towards it. In the 93 fm. level, west of King's shaft, the lode is 1½ ft. wide, principally flookan, quartz, iron, and a little tin. In the 82 fm. level, west of King's shaft, the lode is 5 ft. wide, and worth about 20/- per fathom. In the same level, east of cross-cut, we are carrying a part of the lode, about 6 ft. wide, and worth about 10/- per fwm. In the 71 fm. level, west of King's shaft, we are carrying a part of the lode, 6 ft. wide, which is worth about 25/- per fathom. In the rise and stop behind the last named end the lode is worth about 25/- per cubic fathom. We intend commencing at once to sink another winze from the 71 to the 82 fm. level, which will be No. 3 winze, and about 20 fms. west of No. 2 winze, which has been communicated to the 82, and the ends of which are now being stoned. In the 71 fm. level cross-cut south, east of King's shaft, we are passing through parts of the tin lode, and expect shortly to be able to turn and drive east under the tin ground discovered in the 61 fm. level east. In the 61 fm. level, east of King's shaft, we are carrying a part of the lode, 6 ft. wide, and worth about 20/- per fathom. In the 20 fm. level, east of Fraser's shaft, the lode is 2 ft. wide, and worth about 7/- 10s. per fathom. In the winze sinking under the 19 fm. level, east of Fraser's shaft, the lode is 2 ft. wide, and worth from 10/- to 12/- per fathom. Junction Shaft: In the shallow adit level east the lode is 4 ft. wide, and worth about 15/- per fathom. In the same level west the lode is 1½ ft. wide, and worth about 8/- per fathom. Plantation Shaft: In the shallow adit level east the lode is 1 ft. wide, and worth about 5/- per fathom. There is nothing requiring notice at the other points of operation. We have now 75 tons of tin dressed ready for the smelting house.

SOUTH DARREN.—John Boundy, W. H. Boundy, Aug. 11: The lode in the 90 west contains strings of lead and copper ore, and from appearance we expect it will improve as we advance. The lode in the 80 west has further improved since the last report, now worth for lead and copper ore 25/- per fathom, and has every appearance of improving as we extend westward. This lode is encouraging for the next level—the 90—which is being pushed forward by six men as fast as the nature of the ground will admit. The different stokes are looking as well as for some time past. Other points are much the same as last reported. The dressing is being pushed forward as fast as possible. We shall sample to day 20 tons of lead ore.

SOUTH KIT HILL.—W. Skewis, J. Prowse, Aug. 12: The engine-shaft is down 15 fms. below the adit level, and is cased and divided complete for drawing at this point. The side end has also been cut the south side of shaft, which has shown the lode to be fully 6 ft. wide, with a good lead of tin on the footwall. The lode is chiefly composed of spar, prian, blue peat, and tin, still worth about 12/- per fathom, altogether a very fine-looking lode. As soon as the ends are driven a short distance the sinking of the shaft will be resumed as quickly as possible. We expect to sell 3 tons of tin by next week.

SOUTH MERLINS.—Robert Rowlands, Aug. 13: In the 60 yard level, driving south from Vicker's shaft, the lode continues to improve in character as we advance with the end, and when a few yards further on will bear lead in large quantities; at present good lumps of steel ore are found in a channel of ground highly satisfactory. From the roof of Swallow some solid lumps of ore have dropped, so it will be advisable soon to rise up. In the rise from the level north the men are driving south as well as stoning. In the 120, driving north from Vicker's shaft, I am pleased to say the men communicated with the pump on Tuesday last; they are now engaged in clearing, which when done I shall place six men to continue the driving further north to meet the run from which 30 tons of lead were raised in so short a time. Having the main shaft complete to the 120, and all the ground opened for an extensive tract, I may reckon that in future our every day operations will be in lode, presenting all the necessary indications for a good mine.—Burt Sump: I have four men driving south from this in good-natured stuff, and expect to see lead in some quantity very soon.—Dressing Floors: No water at present to dress, but I hope in a few weeks to make such alterations that we may in future to an extent rely on not being short. A fair pile of stuff is now on surface, which we hope to increase.

SOUTH PHENIX.—J. Kelly, Aug. 4: There is no perceptible alteration in our underground operations since my last report, on July 14, except at the bottom of Pearson's shaft, where we commenced to drive south last setting day; after driving about 5 ft. we have met with Grace Dene lode, but have only cut into it a few feet; this part of the lode is very hard, and letting out much water, and from its present description I think that it is the capel part of the lode, being composed principally

of spar and capel, with a little peat and granite intermixed, and containing a small portion of tin; very probably we shall find the lode here just like the lode in the 20 when first cross-cut, the south side of the lode being much the best tin-bearing part. The whole of our surface work is going on satisfactorily. We have nearly completed another large reservoir to contain water, when we get a fall of rain in the hills. We have about 1½ ton of tin in the chest ready for the market, and hope to send it to the smelters in a few days. We are very busy getting on with the dressing for another batch, and fully believe we have another ton of tin already stamped. Our machinery is in good working order, and keeping the mine in fork easily.

SOUTH PLYNIMMON.—John Walters, Aug. 8: The 40 fm. level is further extended 4 ft. 6 in.; there is no particular change to notice since last report. At the western shaft the men are still engaged stripping down the lode, which is of great size and strength, composed chiefly of spar, capel, quartz, &c., of a very strong and masterly appearance.

SOUTH ROMAN GRAVELS.—J. W. Powning, Aug. 13: Shelfield: There is no particular change in the engine-shaft. The shaftmen have not made such satisfactory progress as I could wish; sunk since last report 2 ft. 6 in., making the depth of shaft below the 10 fm. level 6 fms. 2 ft. 6 in. The 10 east continues to go forward in a large lode 5 ft. wide, in which there is a rich branch of lead ore and carbonate of lime mixed, about 5 in. wide. This branch does not make up quite to the roof of level, but is apparently the outcrop of another shoot of ore. I see no further alteration in the deep adit cross-cut driving west towards Roman lode.

SOUTH TOLCARNE.—J. Vivian and Son, J. Paul, Aug. 14: In the deep adit, west of cross-cut, on South Conduffor tin lode, have struck a "breast head," extending completely across the end for a width of 10 ft., which is as far as we have yet cut into the lode. We have not yet squared the end, so as to break through this head or lamina, but calculate on doing so at the end of the week. All that we can report at present is that the surface of the rock is thickly coated with oxide of iron, and that the lodestone broken near it is thickly traversed with veins of tin. In the deep adit, east of shaft shop, there is a branch about 18 in. wide, produced by iron pyrite, and calcareous limestone.

SOUTH WARD.—R. Goldsworthy, Aug. 12: Good progress is made in sinking Thomas's engine-shaft, being now 9 fms. 3 feet 6 in. from the 60 fm. level. The 60 fm. level north is set to two men, at 5/- per fathom; the lode is improving in appearance, producing occasional stones of lead. The lode in the 60 south, now set to six men, at 3/- per fathom, continues to be full 3 feet wide, and producing 4 cwt. of lead per fathom—a very fine looking end. In the 40 south driving by two men, at 3/- 10s., the lode is not yet intersected. There are four stokes working by eight men, the average price for stoking being 17s. 6d. per fathom; these stokes are yielding the usual quantity of lead. We are preparing another parcel of lead for sampling at the end of this month.

SUCCESS, RUSHY CLIFF, AND NANCY CONSOLS MINE.—H. Francis, Aug. 7: In forwarding my report this week it affords me much pleasure to say that our progress at Nancy shaft has been satisfactory, and that we have still with us the same fine looking lode as previously reported. In Derby shaft we have a good looking lode in which we have to-day broken good stones of ore, and there is

now strong evidence of our being close to a body of ore. Our progress in Bushy Cliff adit has been slow, owing to the hardness of the ground; but our being now well into the white limestone induces me to think that an alteration in the ground will soon take place. The vein is very much of the same character, being well

sunk, yielding some good work for the stamps; it is 3½ ft. wide, worth 4/- per fathom.

ST. AGNES CONSOLS.—Wm. Vivian, Aug. 14: We are making good progress in sinking the engine-shaft, now 9 fms. below the 48. In the 35, driving on Rock Road lode, east of the cross-cut, the lode is worth 8/- per fathom. Driving west the lode is worth 7/- per fathom. We are pushing on the cross-cut north at the 45 fms. level, east of shaft.

ST. DENNIS CONSOLS.—Thomas Parkyn, Aug. 14: The men are still raising

the same quality of tinstuff as reported last week. In fact, I have nothing new to report from last week. We have a large pile of tinstuff at surface of good quality.

ST. JUST AMALGAMATED.—R. Pryor, W. Baden, T. Richards, Aug. 12: The bottom of our mine, on Savile's lode, continues to open up well, and there is

no change either in our turtwork or tribute bargains worthy of remark since our last week's report. Saturday next being our pay and setting a full report shall follow.

ST. LAWRENCE AMALGAMATED.—Wm. Wasley, Aug. 14: St. Lawrence: We continue to get good ore in the bottom of the 52 yard level. We are making fair progress with sinking the new shaft, and are getting some nice lumps of ore, but not enough yet to set a value on, but I am daily expecting an improvement.—Valentine: The ground in the end driving on Ellis's lode is without any change to notice, and the lode just the same as last week, producing some fine lumps of ore and looking very promising. We sold to day 6½ tons of ore, at 13/- 1s. 6d. per fathom; and the lode is let out at 7/- 15s.

TAMAR CONSOLS.—George Rowe, August 13: The stratification at the adit level driving east from the engine-shaft is of a good description for the production of minerals, and our progress is very satisfactory in going towards the junction of the different lodes in this direction.

TAMAR VALLEY.—J. Goldsworthy, August 14: Weston's Engine-Shaft: The sinking below the 67 is being forced on with all speed; the lode in this taking

down has been a little disordered, but is again coming more compact, and is pre-

senting a favourable appearance, being composed of friable quartz, hornspar, mudie, prian, and spotted with blonde and silver-lead ore. There is no particular change in the tribute department this week to notice. The pitwork and machinery are in good condition.

TANKERVILLE.—John Smitham, August 14: I beg to inform you that there is

no change in this minis worthy of notice since the meeting last week.

TREGARDOCK.—J. and T. Sparro, Aug. 13: In our last report we stated that we intended taking down the lode this week, since which we have intersected an oblique branch that has now fallen into the lode. At the point of intersection with the lode it made a large yugh, from which we have broken what is termed by the miners Cornish diamonds (crystallised spar), associated with some splendid lead ore, the appearance of which speaks for itself, and needs no comment. We shall now continue to drive for another week before taking down the lode, when we hope to report a further improvement. The ground continues good for driving. We have commenced driving towards the eastern junction of Nos. 1 and 2 lodes, and shall lose no time in reaching that point. Good progress is being made in the different points in operation, and the mine gradually improves as the workings are extended.

TREREIGH WOOD.—E. Hosking, August 13: The ground in the 44, west of

the engine-shaft, is improved, and the men are making better progress in driving; the lode worth 8/- per fathom. The lode in the 44 east is worth 10/- per fathom. The stop in the back of the 34, east of Windmill shaft, is worth 50/- per fathom. We have holed the winze sinking below the 24, on the cross-course, and shall soon commence stopping the end of the winze. There is no change to notice in any of the other bargains since our setting report.

TYLLWYD (Silver Lead).—John Paul, Aug. 14: Saturday last being our mea-

suring and setting day, the following bargains were measured and re-set:—During

the past month the engine shaft has been sunk 2 fms. At the beginning of the month the men were engaged in clearing the debris from the adit level, in order to

to bring the stuff from the shaft through this level, instead of drawing it up the shaft as before mentioned; set to six men, at 210s. per fathom, 4 fms. stent; this we

hope to accomplish by our next measuring day, it being five-weeks month. The adit level on the north lode has been extended 2 fms. 5 ft. during the past month in a lode varying from 1 ft. to 2 ft. 6 in. wide, carrying a little ore throughout, with a well-defined wall. At present the lode is not quite so large, being disordered by a cross-joint, but from present indications this will be of short duration; set to four men, at 120s. per fathom, and to clear their own stuff. The cross-cut towards the north lode has been driven 2 fms. 2 ft. in the past month. Here the ground has been very hard and slow of progress. We have had some small branches of spar, and there is an alteration in the ground, but still very hard, with a little water issuing from the refron; set to four men, at 150s. per fathom, 2 fms. stent, or cut the lode. We have set to drive on the branch going south from middle lode to two men, at 100s. per fathom; the same is from 2 to 3 ft. wide, producing some very good saving work. Splendid lumps of ore have been broken from this lode during the past few days. The masons are busily engaged in building the wheel-pit, which is now about 5 ft. high, and good progress is being made in all our operations, and the prospects of the mine are very favourable.

VAN CONSOLS.—J. Roach, Aug. 14: The 60, east of Gundry's, is now 11½ fms.

doubt but that the lode will be found rich for tin, as it went down under the 22 so rich. At the 22, on the north lode, we had a very great improvement indeed; it is the best work I have ever seen in the mine, and we find that the tyco are the best we have ever had in the mine. I am very pleased to be able to report such good news. I shall be looking forward to the cutting of King's lode at the 32 with great interest; all things are going on well. I might say that the sinking of the engine-shaft from the 22 to the 32 has been attained with great success and also great dispatch. I never remember a shaft sunk so fast. We have what the miners call good luck.

WHEAL UNY.—W. Rich, M. Rogers, S. Coade, jun., Aug. 9: At the monthly setting yesterday Hind's engine-shaft was let to sink by nine men, below the 30, at 24' per fathom. The 130', to drive south under this shaft, to six men, at 24' per fathom. The 30 fm. level end east has a promising appearance, but we think the main part of the lode is standing south of the level; we shall now cross-cut in that direction to prove. The 50 fm. level end east is worth 20' per fathom, and ground easy. The 60 east carries stones of tin; this end and the levels below are apparently not far enough east to intersect the shoot of tin seen in the 50, which is dipping east fast. The 80 east seems to be improving. The 90 east is worth 8' per fathom. The winze below the 100 fm. is harder ground. The 110 east yields stones of tin, and looks likely to improve. The 120 east is worth 10' per fathom. The 140 east is worth 10' per fathom. The 150 east is worth 8' per fathom.

WHEAL WHISPER.—John Mass, Aug. 13: In our north stope we have good branches of tin, which are improving as we get nearer the intersection of the Mackenzie lode. The increase in our batches of tin will much more than make up for the drop in price. Work generally is going on satisfactorily.

WILLOUGHBY.—H. Nottingham, Aug. 14: In the 23 cross-cut east we have crossed a north and south branch of spar, containing a little blonde, and letting out a good deal of water. I think this is the same we saw at the 13 cross-cut; if so, we should have about 1 fm. more to drive before intersecting the lode. In the cross-cut driving west from bottom of shaft we have also cut into a very strong branch of spar and blonde, running in a north and south direction, and letting out as much water as is coming from all other parts of the mine. Looking at the character of the stuff contained in this branch, and the stream of water that is coming from the direction of the lode, we are, in my opinion, certain of finding it productive. I have taken the underlie of the lode in winze sinking south of shaft, and find that we should intersect this lode in 2 fms. further driving. I am glad to say we have now drained all the water from the winze sinking on new lode, south of shaft, and the lode looks better for lead, with indications for further improvement. The winze north of shaft, on new lode, is without change. The stope north of winze, on Goddard's lode, is worth 1½ ton of lead, and the same of blonde, per fathom. Dressing and other surface work going on without interruption.

CHONTALES.—The news by the mail this week is again favourable. The profit for June (after allowing 139% chargeable to construction account) was 330%, while the results for July were expected to be still better. When the additional stamps (in course of erection) are at work considerably increased profits may be looked for. The lode at San Sebastian had improved, and we believe a good deal of profitable ground is opened, and still standing, at this part of the property.

BURROW AND BUTSON.—The agents report that all the work determined upon is progressing most satisfactorily. The main engine-shaft is likely to be cleared up to the 82 in four weeks, or about a month sooner than was promised to the shareholders at their general meeting on July 1. An assay, made by Prof. W. White, of the silver-leads ore, on which there are now several tribute pitches at from 6s. 8d. to 9s. in 12', resulted in 81 per cent. of lead and 24 ozs. 10 dwts. of silver per ton of ore.

Llanberis.—In another column appears a report upon this mine, which is being privately worked by a party of influential capitalists. The prospects appear to be very encouraging, indicating that at no distant date it will resume its former profitable position. The mine has not been worked for more than 40 years, and then in a crude way. The ladders, tools, &c., taken out are in a perfect state of preservation. The operations are being pushed forward vigorously, and large bodies of ore ground are being laid open.

MESSRS. ENDEAN AND CO., STOCK AND SHARE DEALERS, 85, GRACECHURCH STREET, LONDON, E.C.
Capitalists and investors will find through us the best and safest medium for general information and advice touching all kinds of Stocks and Shares, British or Foreign, together with the purchase or sale of them. All marketable securities of the Bampfylde, Brym, Boscastle Downs, Aberdaunant, and the Wood Close shares; these cannot fail to have a great rise in value.

ENDEAN AND CO., 85, GRACECHURCH STREET, E.C.

MR. E. CAVENDISH TAHOURDIN, SWORN STOCK AND SHARE BROKER, 13 AND 14, CORNHILL, E.C., AND SHREWSBURY, has for SALE, for CASH or ACCOUNT, the following SHARES, and is also prepared to Sell the same, as well as every description of other Stock and Shares, for delivery in three or six months, on receipt of a cover of 25 per cent. of the purchase-money, or to make advances thereon on moderate terms:—

Buyer.	Seller.	Buyer.	Seller.
Aberdaunant	6s. ...	Lovell	£ 5 ... £ 5½
Allt-Y-Crib	17s. 6d. 18s. 6d.	Last Chance	4½ ... 6
Bog	£ 1½ ... £ 1½	North Treseker	½ ... ½
Boscastle Downs	½ ... ½	New Silver Rake	5½ ... 5½
Birley Creek	1½ ... 2	Old Batholes	½ ... 1
Bronlloyd	10s. —	Pennerley	2 ... 2½
Clee Hill Colliery	¾ ... 1	Penstrefthal	19s. ... 21s.
Carn Brea	85 ... 87	Pary Mountain	7s. ... 9s.
Cwm Elan	7s. ... 8s.	Plynnimon	5s. ... 7s.
Cook's Kitchen	17 ... 18	Perkin's Beach	4s. ... 6s.
Chontales	½ ... ½	Richmond Consols	6½ ... 6½
Cedar Creek	1½ ... 1½	Roman Gravels	20½ ... 21½
Devon Consols	1½ ... 2	Rookhope Valley	1½ ... 2
Don Pedro	10s. ... 13s.	Sierra Buttes	3½ ... 3½
East Foxdale	—	South Roman Gravels	23s. ... 25s.
East Van	4 ... 4½	Sweetland Creek	4½ ... 5
Emma	5 ... 5½	Tankerville	11½ ... 11½
East Lovell	15 ... 18	Tecoma	4½ ... 4½
Eberhardt	1½ ... 2	Tincroft	45 ... 45
Fortescue	9s. ... 10s.	Tyllwyd	1 ... 1½
Flagstaff	8 ... 8½	Van	35 ... 37
Grogwinion	1½ ... 2	Van Consols	4½ ... 4½
Gold Run	4s. ... 6s.	West Tankerville	3½ ... 3½
Gawton	1 ... 1½	Wheat Croftor	2 ... 3
Great Laxey	15½ ... 16	Wheat Greenville	3½ ... 4½
Hington Down	4½ ... 5	Wheat Mary	4½ ... 5
Ladywell	3½ ... 3½	W. Caron (call paid)	2s. 9½ ... 3s. 3d.

SPECIAL BUSINESS in.—
Mr. TAHOURDIN being in direct telegraph communication with Utah is enabled to give reliable information upon these properties. Shareholders are cautioned against selling without first communicating with Mr. E. C. TAHOURDIN; and they should not, under any circumstances, lend their stock.

2.—The Mines of the Shropshire District.

3.—New Silver Rake: These shares should be secured for a great rise in price.

English and Foreign Stocks, Railway, Bank, Dock, and other Shares dealt in at closest prices for cash or account.

CITY OFFICES,—13 AND 14, CORNHILL, E.C.

M. R. CHARLES F. COLLOM, MINING ENGINEER, INSPECTOR OF MINES, &c.

TA VISTOCK.

MANAGEMENT OF THE SOUTH DEVON FIRE-CLAY COMPANY.

Patentee of COLLOM'S PATENT REVOLVING FRAME for DRESSING TIN, AMALGAMATING GOLD, &c.

INVESTMENTS IN MINES ARRANGED FOR CAPITALISTS.

M. R. T. P. T H O M A S, MINING AGENT, PONTERWYD, NEAR ABERYSTWITH.

T. P. T. offers his services to private parties and public companies in advising, inspecting, and reporting upon the mines in Wales, with which he has practically acquainted for the last twenty-five years.

Parties desirous of taking an interest in the LLWYN TRIPY LEAD MINING COMPANY (Limited), just registered, may obtain shares and every information as to the mines by applying to him at the above address.

THE LONDON AND AUSTRALIAN MINING AGENCY.

M. ESSRS. C. F. NICHOLLS AND CO., 137, FENCHURCH-STREET, E.C., AND MELBOURNE, BALLARAT, AND SANDHURST, VICTORIA, AUSTRALIA.

Our Mr. NICHOLLS having had 20 years practical experience of gold mining in the Colony of Victoria, we have established the above agency for the double purpose of introducing sound mining ventures to English capitalists and the public, and to give such information as to the character of mining properties that may be offered on this market as will indicate their real value and the actual capital necessary to develop and work them, and thus help to protect capitalists and the public from deceptive representations, and vendors from being made the tools of financial agents.

It has been established that the gold mines of Victoria taken in gross pay 20 per cent. per annum on the capital invested, and some of the principal mines from 50 to 60 per cent. per annum. As the development of gold mining in Victoria is only limited by the amount of capital employed, Messrs. Nicholls have determined to aid in its introduction.

The mine referred to below is recommended by our firm as a legitimate investment.

C. F. NICHOLLS AND CO.

P.S.—Our Mr. Nicholls will return to the colony before the end of the year and report regularly to the office. He is willing to attend to any mining commission in the colony.

NORTH HUSTLER'S COMET GOLD MINING COMPANY, NO LIABILITY.

This company was registered 16th January, 1873, under the provisions of an Act of Parliament of Victoria, Australia, cited as the Mining Companies Act (see Victorian Government Gazette, January 24th, 1873, p. 174), to work a mining concession from the Crown, situated on the northern continuation of the celebrated Hustler's Line of Golden Quartz Reefs, Sandhurst. These golden reefs in 1871 and 1872 paid dividends at the rate of 400 per cent. per annum on the total capital of the Great Extended Hustler's and Tribune Companies. A few shares are open for application at a premium of 5 per cent. on the original cost of £1 per share, in lots not less than five. For particulars apply to:

Messrs. NICHOLLS AND CO., 137, Fenchurch-street.

Mr. Charles Nicholls, C.M., may be consulted in reference to the character and value of Australian mines between 11 and 4 P.M.

* * * With this week's Journal an enlarged SUPPLEMENTAL SHEET is given, which contains:—Mr. Hermon's Prize Essays on the Prevention of Accidents in Mines—Mines and Mining Districts of Utah—South Staffordshire and East Worcestershire Institute of Mining Engineers in Lancashire—Interesting Experiments with Dynamite—Wassell Grove Coal Estate—Automatic Gas Stoking Apparatus—Foreign Mining and Metallurgy—Foreign Mines Reports—Patent Matters—Meetings of the Miners, South Cardigan, West Tankerville, Old Batholes, St. Stephen's Tin and Copper, East Nant-y-Mwyn, West Wheal Seton, and Trelohn Tin and Iron Companies—Original Correspondence: Kanawha Valley Coal Region; Gauley Kanawha Coal Company (M. F. Maury); Nova Scotia Mining Titles (A. Heatherington); Gold Fields of Nova Scotia; Emma, Flagstaff, and Last Chance Mines; Speculating in Foreign Mining Shares; More Coal in the North (K. McNab); Utilisation of Water-Power in Mines (J. Sturgeon); New Methods of Searching for Springs of Water (L. Journeau); Slate Quarrying in Anglesea; Mining in North Wales, and its Prospects, No. IV. (R. Knapp); Roshydwood Mine, and Mr. Green's Dressing Machinery; Improvements in Lead Dressing at Roshydwood (S. Y. Dunn); Tin Trade, and its Prospects (T. Sparro); Tin Miners, Smelters—Co-operative Self Support (R. Trethimick); Great Laxey Mines Management (J. Polglase); Who Worked the Great Lode, Tregardock Mine, Cornwall? (N. Ennor); East Bassett; New Rosewarne, and its Management; Red River; Bronlloyd Mine, and its Management (J. Davies); Treverrick Mining Company; Wheal Coates (N. Bryant); Flagstaff Mine, and the "Bears"; Utah Silver Mines; Speculating in Foreign Mines (S. T. Paffard); Cuba Gold Mining Company, &c.

105s. 9d. to 106s. 6d. cash, closing sellers 106s. 3d. To-day the market is steady and the closing price 106s.

SHIPMENTS.

Week ending Aug. 10, 1873.

Tons

8,000

so as to make the market steady.

Week ending Aug. 9, 1873.

Tons

17,241

so as to make the market steady.

Decrease ... 9,273

Total decrease since Dec. 25, 1872 ... 18,149

It is remarkable that in the face of the enormous falling off in shipments the foregoing statement shows that the position of the market should be what it is. There has been a drop of about 30s. per ton in the price of pigs since last year.

LEAD.—The market is firm, but without very much doing. Spanish position of this metal. It does not seem probable that lower prices than those now current will be accepted. Good soft English pigs 22. 10s. to 22. 17s. 6d.

QUICKSILVER is quoted 15s. per bottle.

SPELTER.—There is not much change to report. A small parcel of W.H. has realised 27s. in Hull, and 50 tons Gladbeck, ex ship in London, 25s. 5s. cash.

TIN.—The market throughout the week has kept remarkably steady considering the small amount of business done. The large importations of Australian ore exercise a prejudicial effect upon the market, and cannot but be viewed otherwise than as a serious and important feature, particularly affecting the value of the future position of Straits and Banca.

TIN-PLATES.—Easier in price. IC coke of good brand can now be bought at 32s. in London.

COPPER.—Messrs. James and Shakespeare.—In furnace material transactions are reported. The telegram from Chile was received on Monday morning, advising charters of 1400 tons pure for the first fortnight in July, in bars and ingots, 400 in ores and regalum, all for England. Stock on the Coast was estimated at 6800 tons. The figures in the corresponding period of the year were—charters 2275 tons, stock 3250 tons. The price of bars in Valparaiso, on 16th ult., was equal to 83s. 15s., laid down in Liverpool, English conditions, without commissions to merchants on either side. These news have had almost no effect, excepting at full rates. The sales for the week amount to 2000 tons, of which 150 Lots, at 81s. to 81s. 10s.; 50 same brand tons, ex Cullana, 81s. 15s.; 225 Urmeneta, 81s. to 81s. 10s.; 220 good ordinary brands, 81s. 10s. to 81s. 15s.; 10,000 al. cash; 50 good ordinary brands, 82s. 10s., three months' prompt; 25 J. Edwards, 83s. 10s. cash; those at the lowest prices were mostly for immediate cash, and without brokerage. Of Australian 880 tons were taken, 35 tons being without commissions to merchants on either side. These news have had almost no effect, excepting at full rates. The sales for the week amount to 2000 tons, of which 150 Lots, at 81s. to 81s. 10s.; 50 same brand tons, ex Cullana, 81s. 15s.; 225 Urmeneta, 81s. to 81s. 10s.; 220 good ordinary brands, 82s. 10s., three months' prompt; 25 J. Edwards, 83s. 10s. cash; those at the lowest prices were mostly for immediate cash, and without brokerage. Of Australian 880 tons were taken, 35 tons being without commissions to merchants on either side. These news have had almost no effect, excepting at full rates. The sales for the week amount to 2000 tons, of which 150 Lots, at 81s. to 81s. 10s.; 50 same brand tons, ex Cullana, 81s. 15s.; 225 Urmeneta, 81s. to 81s. 10s.; 220 good ordinary brands, 82s. 10s., three months' prompt; 25 J. Edwards, 83s. 10s. cash; those at the lowest prices were mostly for immediate cash, and without brokerage. Of Australian 880 tons were taken, 35 tons being without commissions to merchants on either side. These news have had almost no effect, excepting at full rates. The sales for the week amount to 2000 tons, of which 150 Lots, at 81s. to 81s. 10s.; 50 same brand tons, ex Cullana, 81s. 15s.; 225 Urmeneta, 81s. to 81s. 10s.; 220 good ordinary brands, 82s. 10s., three months' prompt; 25 J. Edwards, 83s. 10s. cash; those at the lowest prices were mostly for immediate cash, and without brokerage. Of Australian 880 tons were taken, 35 tons being without commissions to merchants on either side. These news have had almost no effect, excepting at full rates. The sales for the week amount to 2000 tons, of which 150 Lots, at 81s. to 81s. 10s.; 50 same brand tons, ex Cullana, 81s. 15s.; 225 Urmeneta, 81s. to 81s. 10s.; 220 good ordinary brands, 82s. 10s., three months' prompt; 25 J. Edwards, 83s. 10s. cash; those at the lowest prices were mostly for immediate cash, and without brokerage. Of Australian 880 tons were taken, 35 tons being without commissions to merchants on either side. These news have had almost no effect, excepting at full rates. The sales for the week amount to 2000 tons, of which 150 Lots, at 81s. to 81s. 10s.; 50 same brand tons, ex Cullana, 81s. 15s.; 225 Urmeneta, 81s. to 81s. 10s.; 220 good ordinary brands, 82s. 10s., three months' prompt; 25 J. Edwards, 83s. 10s. cash; those at the lowest prices were mostly for immediate cash, and without brokerage. Of Australian 880 tons were taken, 35 tons being without commissions to merchants on either side. These news have had almost no effect, excepting at full rates. The sales for the week amount to 2000 tons, of which 150 Lots, at 81s. to 81s. 10s.; 50 same brand tons, ex Cullana, 81s. 15s.; 225 Urmeneta, 81s. to 81s. 10s.; 220 good ordinary brands, 82s. 10s., three months' prompt; 25 J. Edwards, 83s. 10s. cash; those at the lowest prices were mostly for immediate cash, and without brokerage. Of Australian 880 tons were taken, 35 tons being without commissions to merchants on either side. These news have had almost no effect, excepting at full rates. The sales for the week amount to 2000 tons, of which 150 Lots, at 81s. to 81s. 10s.; 50 same brand tons, ex Cullana, 81s. 15s.; 225 Urmeneta, 81s. to 81s. 10s.; 220 good ordinary brands, 82s. 10s., three months' prompt; 25 J. Edwards, 83s. 10s. cash; those at the lowest prices were mostly for immediate cash, and without brokerage. Of Australian 880 tons were taken, 35 tons being without commissions to merchants on either side. These news have had almost no effect, excepting at full rates. The sales for the week amount to 2000 tons, of which 150 Lots, at 81s. to 81s. 10s.; 50 same brand tons, ex Cullana, 81s

so also are two parallel lodes, and the sole of the vein now working. Two deeper levels are coming rapidly on to prove and work the mine under the present level, both of which are expected to be productive when under the ground driven over during the last two years. Minera, 32½ to 37½; at the annual general meeting, on Aug. 1, a dividend of 36000. (8s. per share) was declared, making, with the three quarterly interim dividends, 38s., free of income tax, per 5s. share during the year, being at the rate of 38 per cent. per annum on the share capital of the company.

Among Foreign Mines great fluctuations have taken place in Emma shares from 3½ to 6½, and they leave off 5½ to 6. Eberhardt and Aurora, 5 to 5½; Flagstaff, 8½ to 9. Chontales, 1½ to 2; the advices this month are more favourable, and show a profit on actual working account of 3300. At San Sebastian the lode has improved to 6 dwt. of gold per ton, and the next month's profit is expected to be better.

The Market for Mine Shares on the Stock Exchange during the week has shown more animation, the greatest amount of business having been in American mines. Emma shares have been in exceptional demand, upon information (as stated below) that another body of ore has been struck. In home mines the business has not been considerable, although Van, Roman Gravels, Assheton, Tankerville, West Tankerville, and others of a similar character have been in fair demand.

The Metal Market has not experienced much change; business has been quiet, and prices generally maintained. Copper has been steady; in foreign business has been moderate, while English has been in better demand, and manufactured less readily obtainable at quotations. On the whole, the market has an upward tendency. Tin has been dull for Straits, but there has been rather more business doing in English. Spelter in better demand. Lead firmer, at quotations.

Emma shares have been largely dealt in, and at one time were quoted 6½ to 7, and after declining to 5½, 5¾, close 5½ to 5½, firm;

the private information we published last week has since been confirmed by the official announcement made on Wednesday, and from further reliable private sources there seems reason to hope that this pioneer Utah mine is now entering upon a period of great prosperity as during its most profitable days, when more than \$2,000,000 were extracted in 12 months. As showing the great producing capacity of this property it may be mentioned that during 40 days after the New York Company was organised, and before the mine was placed upon the London market, the profit realised amounted to nearly 100,000L. We have always contended the London company should never have been capitalised at the enormous sum of 1,000,000L; had the amount been 500,000L little doubt is entertained that dividends would have been continued. On July 26 we were enabled to state in this article that rich ore, realising an average of 120L per ton, was being extracted from near the caved chamber; this is now confirmed by the official circular just issued, copy of which appears in another column. A correspondent, whose letter appears elsewhere, states that the ordinary ore (according to the last assays) yields 94 ozs. of silver and 48½ per cent. of lead, and the selected ore 538 to 547 ozs. of silver per ton, adding that when the work which the manager has in hand has been completed the mine will be as good, if not better, than at any time since first discovered.

Flagstaff shares have fluctuated from day to day, and almost from hour to hour, and close 8½ to 9; the value of the last week's run was 6900., which is an increase, as compared with the previous week, of 700., yet in the face of these improving returns the adverse operators still succeed in depreciating the value of the shares, but, judging by the increasing number of bona fide shareholders, now amounting to over 800, as compared with 400 a year since, it would appear that advantage is taken of low prices. Private and official advices agree that the mine was never in such a favourable condition as at the present time. The above-named correspondent confirms the statement that this mine is now yielding upwards of 100 tons of ore per day, adding that hitherto this company has made a reputation from two furnaces, and there is no reason why it should not be sustained when they run three. Last Chance, 5½ to 5¾; thirteen days' run of the furnaces produced the large sum of 89000L.; it will be remembered that the capital of this company is only 100,000L., and if the same rate of production is maintained increased monthly dividends will shortly be announced. Tecoma, 5½ to 6½; the first week's run amounted to 7200L., more than double the result anticipated. We have previously stated that the ore from this mine being so high in gold and silver the bullion would be of proportionately greater value than that from either Flagstaff or Last Chance; but it could scarcely have been expected that the bullion would be worth 180L. per ton. All trouble with the flux has now been overcome, and the mines continue to develop in a most satisfactory manner. Utah, 1½ to 1¾; there is no direct news from the mine this week. We hear, however, from other sources that the operations of the company are being carried on with satisfactory results. At Camp Floyd, a telegram from Salt Lake states that the mill is running satisfactorily.

Richmond Consolidated, 6½ to 6½. The week's cable is as follows: -\$47,000; new furnace ready within 30 days. The Lezette tunnel was not quite through at the date of last letter from the mine manager (July 19), but he gives three weeks from date as the time that could be confidently anticipated. The \$47,000 return from three furnaces is very satisfactory; it is still more so to learn that the cabled estimate of the month's profit is exceeded by the actual results, the 11,000L. predicted turning out to be 13,000L. Eberhardt and Aurora, 5½ to 5¾; South Aurora, 3½ to 1.

The shares in the hydraulic, or gold-washing, companies have again been in request, especially Sweetland Creek and Birdseye Creek, in both of which we note an advance. It would appear that up to the present washing has not been entirely suspended in either of these companies. Malpaso, 1 to 1½; a telegram received announces a remittance of \$1000, being the result of a clean-up after a run of 42 days. This is considered satisfactory, taking into consideration the excessive drought, and the consequent small head of water. Cedar Creek, 1½ to 2½; the agent, Mr. Lullum, writes that the new tunnel, called the Yankee Tunnel, has been commenced under favourable auspices, and will be kept steadily going now until completed; shafts are also being sunk in advance, so as to expedite the work. Sweetland Creek, 4½ to 5; Mr. G. D. McLean writes that washing was being uninterruptedly carried on, on the date of the advices being before the date of the last telegram. Birdseye Creek, 2½ to 2½; the superintendent, Mr. G. S. Powers, telegraphs the result of another clean-up on the Uncle Sam Claim, giving a profit of \$5500, or 11000L.; this on a failing supply of water is good. The shares close firm, and in request. Blue Tent, 5 to 5½; in another column we give some particulars of this company, the greater part of whose capital has been privately subscribed. We understand that a gentleman has left England to superintend the construction of the ditch, which has been put in hand and will be passed forward with all speed.

From Cape Copper 850 tons of ore and 50 tons of regulus were sold on Aug. 5, by public ticketing, at an average price of 15s. 6d. per unit, realising approximately—ore, 23,200L.; regulus, 2100L. A further sale is to take place on Aug. 19 of 485 tons of ore. Rio Tinto advises that 74 tons of copper have been received at Liverpool from these mines.

The directors of the Linares, Fortuna, and Alamillos Companies are glad to be able to inform the shareholders, in order to allay any anxiety they may feel in consequence of the disturbed state of Spain, that letters have been received from the superintendent at Linares, under date Aug. 6, confirmed by a telegram on Aug. 11, stating that the companies' property had not been interfered with, and that all works were going on regularly.

Asheton shares have further considerably advanced, and close 3½ to 4½; in the earlier part of the week telegraphic information was received that in the 30 fathom level end west rocks of lead were being broken, each weighing over 1 cwt. The value of this important discovery is in the fact that the drivage, which is in whole ground, is approaching the run of rich ore ground opened out in Tan-y-Bwlch, the contiguous property. Subsequent advices state that the lode in this level now contains a rich solid lead of lead 15 in. wide, which will produce more than 5 tons of lead per fathom, or a money value of 75L. per fathom. This is regarded as one of the most important discoveries made of late years in Wales. It may be mentioned that in Tan-y-Bwlch (which is being privately

worked), the lode in the pioneer level is now worth 6 tons per fm., and within short distance of the Assheton boundary.

Van, 38 to 40; there is no change reported from the mine; the various ends and bargains are producing as for some time past. East Van, 3½ to 4; Van Consols, 4½ to 5. Tankerville, 11½ to 12½; there is nothing to report since the meeting, of which full particulars were given in our last Journal. West Tankerville, 3½ to 3¾; the details of the general meeting appear in another column. Bog, 1½ to 2; the pumps have been dropped below the 148, and the engine is again at work forking the mine below that level, all proceeding satisfactorily. Pennerley, 2 to 2½; this mine is improving at Potter's Pit, and from the report in another column the agent expects further discoveries. Perkins Beach, 2½ to 3; the late improvement in Chimney Pipe continues, and the company are this week sampling 25 tons of lead ore. Dylife, 7 to 8; the news this week confirms the late reports; the agent expects to increase the monthly sale after next sampling.

East Lovell, 15½ to 16½; the different points of operation are producing about the same quantity of tin as for some time past, and there is no alteration to notice.

Subjoined are the closing quotations:

Asheton, 3½ to 4½; Bog, 1½ to 2; Carn Brea, 85 to 87; Devon Great Consols, 1½ to 2 prem.; East Wheat Lovell, 15½ to 16½; East Van, 3½ to 4; Great Laxey, 16 to 17; Great Wheal Vor, 4 to 4½; Hindston Down, 3 to 3½; Marke Valley, 1 to 1½; North Treleigh Wood, 1½ to 1½; Pennerley, 2 to 2½; Parys Mountain, ½ to ½; Roman Gravels, 20½ to 21½; South Condurrow, 5½ to 6½; Tankerville, 11½ to 12½; Tincroft, 46 to 48; Van, 38 to 40; Van Consols, 5½ to 6½; West Chiverton, 7 to 8; Wheat Crobar, 2 to 3; West Tankerville, 3½ to 4; Dylife, 7 to 8; West Esquin Lib, 3½ to 4; Almada and Trito, ½ to 1; Birdseye Creek, 2½ to 3½; Cedar Creek, 1½ to 2½; Cape Copper, 23 to 24; Chontales, ½ to ½; Don Pedro, ½ dis. to ½ prem.; Eberhardt and Aurora, 5½ to 5¾; Emma, 5½ to 5½; Flagstaff, 8½ to 9; Frontino and Bolivia, 1-16th to 3-16th; Gold Run, ½ to ½; Last Chance, 5½ to 5½; New Quebrada, 3 to 3½; Pacific, 3 to 6½; Port Phillip, ½ to 1; Richmond Consolidated, 6½ to 6½; Rica, ½ to ½; Sierra Buttes, 3½ to 3½; San Pedro, 2½ to 2½; St. John del Rey, 15½ to 16½ ex new; Sweetland Creek, 4½ to 6; Tecoma, 5½ to 6½; Utah, 1½ to 1½.

The coupons due September 1 next on the issue of \$30,000,000 or 6,000,000L. Seven per Cent. Consolidated Mortgage Bonds of the Erie Railway Company will be payable on and after that date at the counting-house of Messrs. Bischoffsheim and Goldschmidt. The Eight per Cent. Western Extension Certificates of the Atlantic and Great Western Railroad Companies are 1 to 1½ prem. The First Mortgage Bonds of the New York, Boston, and Montreal Railway Company are ½ dis. to ½ prem. Atlantic and Great Western Railroad Leased Lines Rental Trust Bonds are 90½ to 90½ ex coupon; and the New Issue 85½ to 86 ex coupon. Atlantic and Great Western Third Mortgage, 33 to 33½; Preference Stock, 12½ to 13½; and the Common Stock, 11½ to 12½. United States Rolling Stock is 22 to 23½. Erie Consolidated Seven per Cent. Bonds are 95½ to 95½. The Convertible Bonds of the Erie Railway Company are 78½ to 79½ ex coupon. Bischoffsheim's Certificates for Erie Shares are 47½ to 47½.

Messrs. Richardson, Chadbourne, and Co., announce that the letters of allotment of the Mortgage Debentures of the Birmingham (Blakeley Hall) Coal and Ironstone Company (Limited) were posted last Saturday.

The Hockley Hall Collieries (Limited) announce a second quarterly payment, on account of dividend, at the rate of 16 per cent. per annum, for the year ending Dec. 31, 1873.

In the place of the Hon. Sir Terence Aubrey Murray, deceased, Lieut. Coulson has joined the board of directors, as Chairman, in Sydney, of the Great Australian Gold Mining Company, Hawkin's-hill.

Vice-Chancellor Malins has placed the liquidation of the Sao Vicente Mining Company (Limited) under the supervision of the Court, and has continued Mr. J. Waddell as the liquidator.

Vice-Chancellor Malins has appointed Mr. Frederick Whinney the liquidator of the Phosphate Manure Company (Limited), and of the Cuiaba Gold Mining Company (Limited).

MANAGER WANTED,—a thoroughly competent Man, to UNDERTAKE the DUTIES of GENERAL MANAGER of a MINING and IRON-SMELTING WORKS in SPAIN, in which the appointments of practical miner and smelter are already filled up. He must have some knowledge of Spanish. Unquestionable references to be furnished, if required. Salary £300 per annum. A Scotchman would be preferred.

Address, "G. G. G." care of Mr. A. T. Hall, Stationer, 78, Old Broad-street, E.C.

WANTED, a THOROUGHLY PRACTICAL MAN, as MINE AGENT in the ISLE OF MAN. Should be well acquainted with the Clay slate Formation.

Address, giving full particulars of age, present employment, &c., with references as to ability and fitness, stating salary expected, to WILLIAM C. BEW, Secretary, Falcon Cliff Mining Company (Limited), Colonial-buildings, No. 36, Dale-street, Liverpool.

SHEFFIELD.

WANTED, by a Gentleman of good business connections, an AGENCY for the SALE of TIN, or other METALS used in the district. Central office, and good references.

Apply to Mr. JOSEPH CLARKE, 40, Norfolk-row, Sheffield.

TRACTION ENGINE.

WANTED TO PURCHASE, a GOOD SECONDHAND ONE; together with TWO LIGHT WAGONS.

Quote maker and lowest price to W. BOUSTRED, Oxide of Iron Mills, Pontefract, Salop.

PUPIL.—A MINERAL ENGINEER and SURVEYOR has a GOOD OPENING for ONE.

Address, "Fellow of the Geological Society," MINING JOURNAL Office, 26, Fleet-street, London.

NICKEL.—A Firm importing large quantities of NICKEL ORE, of good percentage, is open to RECEIVE OFFERS for REFINING THE SAME.

Address, "A. B." MINING JOURNAL Office, 26, Fleet street, London, E.C.

ON SALE, an 80 in. CORNISH PUMPING ENGINE.—Apply, "X. Y. Z." MINING JOURNAL Office, 26, Fleet-street, London.

FOR IMMEDIATE SALE, to cover advances (no reasonable offer refused)—

200 Shares in EAST CHIVERTON (LEAD) MINE.
300 " GREAT CARADON (COPPER) MINE.
300 " MEDLYN MOOR (TIN) MINE.
50 " WILLINGTON BY (LEAD) MINE (LIMITED).

Apply to Messrs. W. J. TALLENTIRE and Co., Stock and Share Dealers, 20, Change-alley, Cornhill, London, E.C.

VALUABLE MANGANESE SETT.

TO BE SOLD, a MANGANESE MINING SETT in NORTH WALES. At present raising ore containing 70 per cent. of binoxide, and worth £7 6s. per ton. Requires capital to fully develop it.

For particulars and to treat, apply to A. H. MAURICE, Muxton, near Newport, Salop.

SPLENDID OPPORTUNITY FOR SMALL CAPITALISTS.

FOR SALE, a FREEHOLD BEST FIRE-CLAY and TERRACOTTA WORKS, complete, with nearly new PLANT for GRINDING and WORKING the CLAY. STEAM ENGINE, DRYING SHEDS, KILNS, &c., capable of producing 21,000 bricks weekly. It is situated in the midst of other flourishing like works, with coal at low figures, and has rail and water accommodation on the site itself. The clay produces the most superior white-facing bricks, ornamental terra cotta works, &c. With £300 an energetic man can here make a genuine fortune.

Apply to Mr. WATSON, 15, Fenwick-street, Liverpool.

CHARLES S. RICHARDSON, MINING ENGINEER,

GEOLOGICAL, TOPOGRAPHICAL, AND MINERAL SURVEYOR,

NORTH STREET, CENTRAL CITY, COLORADO,

Has now been nineteen years in America, the three last he has devoted exclusively to a practical, geological, and mineral examination of Colorado, the resources of which probably exceed that of any other portion of the globe of similar magnitude. He undertakes the survey and valuation of mines and mineral properties, maps, plans, and reports, and, where contracts are entered into, holds himself morally and financially responsible for the accuracy of the works he performs. He is not a buyer or a seller of mines; but, if consulted, will advise capitalists where to invest with safety. Terms according to the nature and extent of the work, which ranges from 20 to 100 guineas.

HARDEN AND SON, MINING ENGINEERS AND EXPERTS

(Late of England),

430, WALNUT STREET, PHILADELPHIA, U.S.

MESSRS. GROSVENOR AND CO., SHAREBROKERS,

89, PORTLAND STREET, MANCHESTER, beg to inform their clients

and the public in general that they have for sale a few shares in each of several

most promising Progressive Mines, which they fearlessly assert will shortly return investors enormous profits on a small outlay and at a nominal risk.

MESSRS. LISCOMBE AND CO., 39, SOUTH CASTLE STREET, LIVERPOOL,

Beg to inform their CLIENTS and the PUBLIC that they are PREPARED to do BUSINESS IN ALL CLASSES OF MINING SHARES—English, Foreign, and Colonial—as the closest market prices.

M R. R. PERCY ROBERTS,

FINANCIAL AGENT,

60, ENGLISH STREET, CARLISLE

ZINC AND LEAD ORES.

I BUY at the HIGHEST PRICES:—

LEAD ORES.—LEAD-SILVER ORES.—SILVER-LEAD ORES.

ZINC AND LEAD ORES MIXED TOGETHER.

SILVER-LEAD, BULLION, HARD LEAD, &c.

SULPHATE OF LEAD, ASHES, SLAGS, &c.

Particulars by letter.

ARMAND FALLIZE, Ingénieur, à Liège (Belgium)

MR. JOHN HENRY POOLE,

MINERAL AGENT,

BILBAO (SPAIN).

CAPPER PASS AND SON, BRISTOL,

ARM PURCHASERS OF

ANTIMONIAL LEAD, HARD LEAD, LEAD MATTE, LEAD SLAGS, SULPHATE OF LEAD, LEAD ASHES, COPPER SLAGS, COPPER RE-

GULUS, TIN ASHES, ZINC ASHES, SPELTER DROSS, HARD SPELTER and MIXED METALS, DROSS or REFUSE containing COPPER, LEAD, TIN, or ANTIMONY.

FROM THE WORSHIPFUL COMPANY OF TURNERS OF LONDON.

T H E F R E E D O M O F T H E C O M P A N Y, together with their SILVER MEDAL and THE FREEDOM OF THE CITY, are OFFERED to any one WORKMAN or APPRENTICE for the BEST WORKMANSHIP in HAND-TURNING in IVORY, and the LIKE REWARDS for the BEST WORKMANSHIP in STONE (porphyry, granite, jasper, agate, serpentine, marble, spar, stalagmite, alabaster, jet, coal, freestone, &c.), or examples of what may be used.

Specimens to be delivered, by permission of the Lord Mayor, at the Mansion House, in the City, between September 29th and October 3rd, 1873, and to remain the property of the artist.

Enquiries as to the conditions of the competition to be made of the Clerk of the Company, WILLIAM MOORE SHIRREFF, Esq., 59, Mark lane, E.C.; or Professor TENISON, 149, Strand, London, W.C., by either of whom printed particulars will be forwarded.

EAST BALLESWIDDEN TIN MINE COMPANY (LIMITED).

Notice is hereby given, that the FIFTH QUARTERLY DIVIDEND, at the rate of EIGHT PER CENT

NOTICES TO CORRESPONDENTS.

Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt: it then forms an accumulating useful work of reference.

STEAM STAMPS.—Noticing that a great many newly-invented steam stamps have been brought out of late, neither of which appear to have met my expectation, I have recently been informed that Mr. Ennor has his nearly complete: will he say where it is to be seen at work, as we are in want of a small stamp for a mine I am connected with?—JAS. WYATT: *Lincoln's Inn Fields*.

MINING.—Will any reader kindly say about what quantity of average copper ore per fathom, at average cost in working, will pay 10 or 12 per cent. to a mining shareholder.—G. C.

MINING IN MONTGOMERYSHIRE.—The letter of "Pedestrian" reached us too late for this week's Journal.

MINERAL WEALTH OF VICTORIA.—"J. K." (Lombard-street).—We are obliged for the documents. The official statistics for 1872 were fully referred to in the *Mining Journal* of July 28. There is no difficulty in making quartz containing 15 cts of gold to the ton return a good profit.

SHARE DEALING.—We never interfere in the sale or purchase of shares; neither do we recommend any particular mine for investment or speculation, or broker through whom business should be transacted. The addresses of most of the latter appear in our advertising columns.

Received.—"An Adventurer"—"J. M."—"W. P. M."—"J. S. J."—"A Small Investor"—"E. O."—"E. F. D." (Charleston)—"E. M." (Gwinnear)—"J. B. J."—"J. D." (Burnley)—"B. K."—"R. S." We cannot be responsible for the statements of correspondents.—"Enigma"—"Reader"—"M. T."

THE MINING JOURNAL,
Railway and Commercial Gazette.

LONDON, AUGUST 16, 1873.

EXAMINATIONS FOR COLLIERY MANAGERS' CERTIFICATES
IN SCOTLAND.

If properly worked in respect of its provisions for granting certificates of competency to colliery managers and other persons whose ambition is to be able to take charge of mines, the Coal Mines Regulation Act of last year cannot fail to be a great boon, both to mine-owners and the mining community generally, and to the public at large, inasmuch as it will be the means of ultimately placing the mining industry of the country under the special charge of highly intelligent, skilled, and practical managers. It will be remembered that the Act of Parliament provides for the granting of certificates of two kinds—viz., certificates of service and certificates of competency. The granting, or rather the non-granting, of the former excited for several months a good deal of discontent and heart-burning, which now, fortunately, has died away; but the latter are only to be obtained by passing a satisfactory examination in certain subjects with which every colliery manager ought to be thoroughly familiar. It is provided in the Act that examinations shall be held in all the mines inspection districts throughout the kingdom, and that general arrangements, fixing upon subjects of examination, choosing examiners, &c., shall devolve upon boards for examination consisting of three mine-owners, three persons practising as mining engineers, three persons working in or about mines, and the Inspector of Mines for the district. It is generally understood that there shall be at least two examinations in each year. We have not yet learned whether or not all the examinations have been completed in England, but as the examinations in the two inspectorial districts embracing the coal fields of Scotland have been completed, and the results made known to the successful candidates, it may be worth while to bring under the notice of our readers a few details which have been placed at our disposal regarding them.

As just indicated, there are two mines inspection districts in Scotland, the eastern and the western. They get curiously mixed up with each other in Lanarkshire, if not even in one or two other counties; but collieries included in them are known as being under the inspection of Mr. Ralph Moore, or Mr. Wm. Alexander, respectively. The gentlemen chosen as examiners by Mr. Moore's board are Mr. Lawrence Hill, civil and mechanical engineer; Mr. Calder, one of Her Majesty's Inspectors of Schools; and Mr. Alexander Simpson, civil and mining engineer, Glasgow; the secretary being Mr. David Wingate, colliery manager, Motherwell. The examination conducted by these gentlemen was held in the Museum of Science and Art, Edinburgh, on June 10 and 11, and, unless we are mistaken, it was the first examination held under the Coal Mines Regulation Act. There were in all 41 candidates who presented themselves for examination, and they were arranged in two classes, the subjects and mode of examination being indicated below:

CLASS I.—Examined orally.

- 1.—General knowledge of Mines Regulation, 1872.
- 2.—Practical knowledge of ventilation.
- 3.—Practical knowledge of sinking, fitting, and pumping.
- 4.—Practical knowledge of winding and haulage.
- 5.—Modes of working in eastern district of Scotland.
- 6.—Underground surveying, and plotting on surface.

CLASS II.—Examined by written papers.

- 1.—General knowledge of Mines Regulation Act, 1872.
- 2.—Theory and practice of ventilation.
- 3.—Theory and practice of sinking, fitting, and pumping.
- 4.—Theory and practice of winding and haulage.
- 5.—Modes of working—not confined to eastern district of Scotland.
- 6.—Surveying and plan drawing.
- 7.—Strength of materials.
- 8.—Natural science, as applied to winning and working mines.

It will thus be seen that the candidates in the second class were subjected to a much more testing examination, inasmuch as they had to show an acquaintance with the theory as well as the practice of their profession. Of the 41 candidates there were 35 who were examined orally, the remaining six being grouped in Class II. Only three candidates were "plucked," two in the first and one in the second class. That is certainly not a great proportion of the total applicants as examinations now go; and we believe we are justified in saying that the examination in both classes was pretty "stiff." In Class II, at least one paper was highly meritorious; we should rather say one set of papers, as each candidate had not fewer than eight different papers to work.

The examination of candidates hailing from Mr. Alexander's district, the West of Scotland, was held in Glasgow on the 1st, 2nd, and 3rd of July, the examiners whom the board appointed being—Mr. James McCreath, mining engineer, Glasgow; Mr. Andrew Kirkwood McCosh, assistant manager, Gartsherrie Ironworks, Cambuslang; and Mr. John Greig, manager, Coltness Ironworks, Newmains; and the secretary being Mr. C. Macpherson, writer, Glasgow. We have been given to understand that the examination in Glasgow brought forth a greater number of candidates than have yet presented themselves at any other examination for the same purpose, there being upwards of 130 who made application to be examined, while fully 120 actually presented themselves.

As in the examination already referred to, the candidates were arranged in two classes. Those of Class I, were persons who had had five years' experience either as manager, or underground manager, or overman, and had been in charge of not fewer than 75 during the whole of the said five years. They were informed that they would be subjected to a written examination for the purpose of ascertaining that they could write and work out questions in the simple rules of arithmetic. Their examination, however, was almost entirely *viva voce*. The following is a list of subjects in which they were examined, together with the values obtainable in them:—

1.—Mines Regulation Act, 1872, general knowledge of.....	10
2.—Ventilation, practical.....	50
3.—Sinking, fitting, and pumping.....	30
4.—Winding and haulage.....	20
5.—Modes of working coal, ironstone, or other minerals, having reference to the nature of the roofs and pavements, and setting off the works of a new pit.....	50
6.—Underground surveying, and laying down on surface.....	20

Maximum number of marks 180
For a "pass" it was necessary that one third of the whole number of marks be obtained, at least 25 being in No. 2, and 20 in No. 5. About two-thirds of the candidates ranked in this class, and, as a matter of course, most of the examiners' time was spent upon them; indeed, the examination of these candidates extended over all the three days.

In Class II, there were included all applicants who, being above 21 years of age, had had two years' experience underground in any capacity, or who had served three years in a mining engineer's office, and had been engaged in the active survey of pits and making plans, or who had been employed as mechanics at a mining establishment for two years, and had been, during the eight months immediately preceding their application, employed underground, requiring a knowledge of mineral workings. There were about forty of the candidates who presented themselves in one or other of these three categories. Besides requiring to display an intimate acquaintance, both practical and theoretical, with the subjects already named under Class I, they had to undergo a searching examination in arithmetic, up to vulgar fractions, including the calculation of areas and volumes. They were informed that there need not be any *viva voce* examination. The maximum number of marks obtainable was 360, a "pass" requiring at least 120 marks, of which at least 30 had to be obtained both in No. 2 and No. 5, and at least 60 in any two of the other subjects.

The examination of the candidates in Class II, was finished on the second day. In both classes the candidates had certainly to work hard for their certificates, as the examination began each day at 10 o'clock A.M., and continued till ten o'clock P.M., with two intervals for dinner and tea.

A somewhat large number of the candidates failed to come up to the standard

set by the examiners, about one-sixth of the whole, which shows that the gentlemen who conducted the examination were not disposed to let any pass who did not show at least a fair degree of merit in the answers given. A large proportion of the worked papers, we understand, were really excellent, and even surprised the examiners, at least two of whom had studied under the late Prof. Rankine and his colleagues in the engineering department of the University of Glasgow, and who may, therefore, be credited with knowing what an examination should embrace in connection with the mining profession. They set 60 questions in Class II, and had to complete the scrutiny of the worked papers in ten days after the examination was over.

We have been thus particular regarding these examinations in Scotland, because we feel satisfied that many of our readers will be disposed to regard them somewhat in the light of examples by which they may compare their own examinations. They show, also, that a much higher standard of education is required in order to become a certificated manager of mines than was generally expected, even among managers themselves. We doubt not that many of the candidates who have been "plucked," both in England and Scotland, will now set themselves vigorously to work to master those subjects which the recent examinations have shown to be necessary for obtaining a certificate. Unfortunately, from the want of mining schools throughout the kingdom, there has hitherto been little done in the way of systematic instruction in the principles of mining and in the sciences upon which skilful mining practice is based. The Ayrshire colliery managers have already begun to feel a want of something of the sort, and, failing the establishment of a mining school, they have resolved on forming amongst themselves a mining institute, in which they hope, at least, to gain self-instruction by intercourse with each other. We need scarcely say that we consider such a resolution an exceedingly commendable one, and deserving of all the encouragement which mineowners can give to it.

THE IRON AND STEEL INSTITUTE OF GREAT BRITAIN.

Next week will witness the Iron and Steel Institute of Great Britain sitting in conclave at Liège, the chief hardware town of Belgium. During its short career the Institute has enjoyed uninterrupted prosperity. Its membership was close on 300 before it had been a year in existence, and now, when it is nearly five years of age, and still in a juvenescence state, it can boast of having over 500 on its roll, while 80 more are to be proposed at the forthcoming meeting in Belgium. Perhaps there is no rule of the Institute attended with more happy and useful results than that which provides for its visit to a different centre of the iron trade every year. In this way the members of the Institute see the ways and usages of their neighbours, become more cosmopolitan in their conceptions, and more ample in their knowledge of the metallurgical arts. The Institute has already visited the principal centres of the iron trade in the United Kingdom, beginning at Middlesbrough, the cradle of its career, and ending with Glasgow, the commercial and industrial capital of Scotland. At the Glasgow meeting an invitation to visit Belgium was laid before the Institute, and very properly accepted. Belgium is so near to our own shores that it is in many respects better known to us than some parts of the United Kingdom. It is the only country that has threatened England with a successful rivalry in the markets of the world, so far as the production of iron is concerned. It is a hive of industry from which it is quite probable that English ironmasters may gather some useful hints and lessons. Metallurgy is yet a crude and imperfect science. Many possible economies are still disregarded or unknown. There is, therefore, much good to be got from a friendly rivalry in the arts of peace, and none of the arts of peace can now compare in point of magnitude and importance with the art of making iron. Although Belgium is not a large country, it contains some very large works. The establishment of Sir JOHN COCKERILL is in many respects unique, and will well repay the visit which the members of the Institute will pay to it. The mineralogy of Belgium is also full of interest, and will be fully illustrated at the ensuing gathering, both in the form of papers dealing with its history and *ratiocine*, and in the form of an inspection of the different mines and collieries within easy visiting distance. Most of the papers proposed to be read will deal with continental mining and metallurgy, but they are not on that account the less interesting to English members. We know what we are doing ourselves, and it is highly advantageous to be able to compare our own achievements with those of our neighbours, in order that we may strike the balance of gain. We look forward with interest to the forthcoming meeting, and our readers will in due course be presented, not only with a full report of the papers read and the discussions thereupon, but also with a description of the works visited by the Institute, in which we propose to show the matters wherein the metallurgical practice of the Continent is superior or otherwise to that of Great Britain.

NEW MINERAL FIELDS.

In noticing the discovery of new coal and ironstone fields in different parts of the kingdom, we have on more than one occasion called attention to the want of a really reliable geological map. The gentlemen engaged on the Government Surveys have so far given us very little more information than we were in possession of many years ago, so that we are often indebted to accident for the bringing to light of some important mineral fields. Of this we have just had a most striking illustration. A few miles to the north of Leicester Mr. GILFORD, of Redhill, Surrey, the lord of the manor of Dalby-on-the-Wolds, instructed a well-known geologist and mining engineer to examine the latter district, in expectation that the coal measures of Nottinghamshire extending into Leicestershire, passing through the Vale of Belvoir. All the indications favoured the idea that coal would be found at Dalby and the neighbourhood; but the actual fact, of course, can only be determined by boring. However, whilst prosecuting his researches the gentleman alluded to discovered a very valuable seam of ironstone, covering a large tract of country. This is about to be worked, so that we shall have to add a large addition to our previous known stores of concealed iron ore, and we have every reason to believe that in the same district the coal measure will also be found in a field embracing nearly 200 square miles. The question of boring is now receiving especial attention from the leading landowners in North Leicestershire, including the Duke of RUTLAND, Mr. GILFORD, and others. It may be said that Mr. J. PLANT, a gentleman who has paid a great deal of attention to the geology of the county of Leicester, some time since gave it as his opinion that the coal measures passed from Nottingham into Leicestershire. If so, the country east and north-east of Leicester, by way of Melton Mowbray and the Vale of Belvoir, will be covered with coal, as a continuation of the field now being worked close to the town of Nottingham, on the estate of the late Sir R. CLIFTON. The present area of the Leicestershire coal field is only about 15 square miles, the workable seams from 2 ft. upwards, giving a total thickness of from 40 ft. to 45 ft. The alleged new field, however, would be more than twelve times the extent of the one now being worked.

It is scarcely twenty years since ironstone was discovered in Northamptonshire, and now the annual production is over 800,000 tons, whilst, branching out from Wellingborough, the ore is actually being raised in Bedfordshire, where the geological maps give no indications whatever of any minerals being there. From Irchester about 5000 tons a week are being sent to Cleveland from the estate of Mr. ARKWRIGHT. Here we have another example of the deficiency of our existing geological maps, although it is pretty generally known that the lower green sand of the cretaceous series runs from the Wealdens into Cambridgeshire and on to Wiltshire, in which latter county there is an important outlier now being worked close to Westbury. In Bedfordshire the lower green sand attains a thickness of about 100 ft., and through its entire length it presents the appearance of a highly ferruginous sand, with much concretionary oxide of iron. There is, therefore, every probability that Bedfordshire may add very considerably to our known stock of ironstone. Going a little farther to the north, we find that in Rutlandshire there are some very important beds of ironstone that are about to be opened out, although the geological maps are not marked as showing that there is any ore to be found in that, the smallest of our English counties. Proceeding still farther northwards, we find strong presumptive evidence that coal will be found at a comparatively moderate depth in Lincolnshire, and at several places in that county borings are now being made and others projected. In the

mist of the Frodingham ironstone field, midway between Scunthorpe and Grimsby, the indications are such as to lead us to believe that the coal measures of the Midland field will be found running through the Vale of York. Again, a new coal district is likely to be opened out in Cheshire, on the English side of the Dee, across the river, and will be found on the opposite side. In Cumberland, there is every appearance of the coal measures being present in a new district, very much larger than the one now being worked, which is only about 20 miles in length, its greatest breadth being more than 5 miles.

From the above facts it will be evident that an entirely geological map is an indispensable necessary, and that it will be frequently altered, seeing that discoveries of large and important mineral fields are being constantly made.

RAILWAY IRON ABROAD.

The returns which are now available for July with respect to exports of railway iron from the United Kingdom exhibit very similar to those which have been reported for some time past. The exports are increasing to Russia, but they present a great decline as regards the United States, and some falling also apparent as regards British America and the Australian colonies. The exports of railway iron month by month from the United States for the first seven months of this year compared with the exports in the corresponding periods of 1872 and 1871:

Month.	1871.	1872.
January	40,502	59,848
February	52,223	71,361
March	81,754	70,112
April	77,663	77,942
May	120,997	87,612
June	103,052	81,164
July	88,281	84,563
Total	564,472	532,605

Although the exports will be seen to have declined month all through this year, still they have kept up wonderfully well, having regard to the extraordinary prices which have prevailed this year,—prices which are reflected in the fact that 564,472 tons exported in the first seven months of 1871 cost £1,010,000, while the 425,550 tons sent abroad in the first seven months of the year were valued at £5,604,841. The decline in the exports, however, have been far more marked this year than had Russia to the rescue just in the nick of time, and so made compensation to some extent, for the very great falling off observable in the imports of the United States this year. These latter shipments been as follows:—

Month.	1871.	1872.
January	28,294	35,299
February	32,784	53,131
March	41,917	41,175
April	32,456	50,568
May	64,444	49,940
June	44,919	37,974
July	42,385	41,305
Total	287,169	300,316

In other words the exports of our railway material to the United States have receded this year to the extraordinary extent of 25 per cent. The decline in the American demand for our railway has been continuous, decided, and unmistakeable. The American consumption held up pretty well in January, but ever since month it has been almost paralysed; and instead of mattering a tendency to improve, the comparison came out worse, it is observed, in July than in June. Various causes may be assigned for this untoward state of affairs. In the first place, the railway construction has been overdone in the United States in the last few years, and the consequence is that the tide of American railway enterprise has rather begun to ebb. In the second place, high prices have, of course, a tendency to restrict consumption, the third place—and this is, perhaps, the most serious cause of all—these high prices have given a great stimulus to the development of American metallurgy, which has attained this year an unprecedented importance. We do not hesitate to say that the decline in the American demand for our railway iron, and the development of American metallurgy, are the greatest circumstances with which the British iron trade has just now to deal. The American demand for our railway material has sensibly revived, but it can scarcely be regarded as permanent; we fear, however, this as it may, it has been a great temporary assistance to our ironworks. The exports of railway iron to Russia have also followed this year as compared with the corresponding months of 1872 and 1871:—

Month.	1871.	1872.
January	193	59
February	2,951	104
March	5,856	1,080
April	6,732	2,522
May	19,496	9,276
June	12,731	7,911
July	7,610	6,409</

to Germany 895,811 tons, against 1,189,272 tons and 1,343,246 tons in the corresponding periods of 1872 and 1871. The exports have increased this year to Sweden and Norway, France and Brazil; but they have decreased to Russia, Denmark, Germany, Holland, Spain, Italy, British India, &c. The value of the coal exported from the United Kingdom in July was £1,215,027, as compared with £50,376, in July, 1872, and 535,882 in July, 1871; and in the seven months ending July 31 this year 7,625,615, against 4,820,506, in the corresponding period of 1872, and 3,271,775 in 1871.

THE SAN JACINTO TIN MINES.—The report of Mr. E. N. Robinson has left no doubt amongst thoroughly practical men that the tin deposits of Temesco are sufficiently extensive and rich enough to warrant a large expenditure of capital. The ore has been analysed by Dr. F. A. Genth, and found to contain 52·92 per cent. of metallic tin. The tin smelted from this ore was of a very high purity, analysing tin, 99·78; iron, 0·11; copper, 0·11. The climate is unsurpassed. It is stated, in truly American style, that the deposit of tin on the estate is sufficient to render the United States independent of foreign supply, and enable them to export so largely as to revolutionise the tin trade of the world. The present company are making liberal expenditure for developing its resources.

SILVER IN INDIA.—The last Indian mail brings reports of a great discovery in Kulu of the old silver mines from whence the kings of Delhi used to get their silver till the natives covered them up, and planted them over to hide them from the Sikhs when they were approaching, and eventually took possession of Kulu. In 1844 the company was annexed by the British Government under Lord Hardinge who confirmed the Rae in his land and minerals, and by whom the minerals were disposed of in 1870 to their present owner.

Mining in VICTORIA.—The present mail brings intelligence of remarkable prosperity in gold mining in Victoria. The *Argus* of June 17 reports that some of the well-known mines there are now yielding profits ranging at the rate of from 100 to 500 per cent. per annum. The following mines, situated in the Maryborough district, are specially mentioned—The Alma Consols, Seaham, Band of Hope, John Bright, and The Queen; and in the Sandhurst district the success in gold mining is said to be scarcely less remarkable.

GOLD MINING STATISTICS OF VICTORIA.—The statistics for the quarter ending March, 1873, in continuation of the annual returns for 1872, published in the *Mining Journal* of July 26, show that 52,873 miners were employed in alluvial and quartz mining. The approximate value of the mining plant was £118,444; there were 1029½ square miles of ground being actually worked upon, and 3260 reefs actually proved to be auriferous. The yield of gold for the quarter was estimated at 297,711 ozs. 7 dwts.

REPORT FROM CORNWALL.

Aug. 14.—There is very little to report in connection with Cornish mining during the present week, nor can it be said in this instance that no news is good news. There seems to be nothing for it but to wait for the tide to turn. It certainly has been flowing quite long enough to the disadvantage of the mining interest; for, with one exception, it is many a year since mining was so heavily weighted as it is now; all that can be done is apparently to exercise that patience which should be second nature with a mining adventurer. The home production of tin is now so low that even when it is coupled with the supply from abroad, if the demand only keeps to its present level, a change for the better must soon appear. This may seem to be only repeating an oft-told tale, but no effort can be misapplied which has for its object the sustentation of confidence in the ultimate issue of what at present seems so dark; and even at the risk of repetition we must endeavour to create and foster that confidence, it is the best service which can now be rendered to Cornish mining.

We are glad to see that there is hope after all that Wheal Busy will not be "knocked," though it may change hands. We cannot contemplate without deep regret the extinction of mining in any district, and there are special reasons for this regret in connection with this district in particular. On the face of it there is no actual reason why Wheal Busy should not be prosecuted vigorously. It is not the fault of the mine, but of the unfortunate conditions under which mining has to be prosecuted, that the concern has got into its present evil plight. We quite agree with Mr. Jose that there are men who never ought to have a share in any mine; but, then, how are they to be kept out?

The Court of the Stannaries is now sitting, but few of the cases are calculated to excite any interest. In one, heard on Monday, the question was raised as to the right of the Registrar to require that documents in the nature of agreements should be stamped, even if legally a stamp were needed. The Vice-Warden has to give his decision. In another case, that of Wheal Hope, the delays which form so serious an objection to the operation of the Court were illustrated, transactions which had taken place in 1864, in which the late Mr. Charles Wescombe was concerned, coming under review. Mrs. Wescombe proved claims in respect for 205.

A curious incident happened the other day at Redruth—the giving in of a level which had been driven very near the surface in connection with some ancient workings, and the existence of which had been wholly unsuspected. Fortunately, no damage was done, although the discovery was made by Mr. Angove sinking into the earth unpleasantly and suddenly up to his knees. A hole that had to be dealt with by so shallow a level, one would think, might have been worked on the back from surface; but the old miners would possibly say that it is easy to be wise after the fact, and dialling now-a-days is by no means so universally exact that we could afford to twit them, were they still alive, with this trifling blunder.

TRADE OF THE TYNE AND WEAR.

Aug. 14.—There has been a good average business done in most kinds of Coal lately, and the progress of prices downwards has been again arrested, as the demand for autumn and winter supplies must soon spring up; it has, indeed, commenced partially, and this in some measure accounts for the circumstance. The following quotations will show that good prices are yet realised for coke and coal, and many hold the opinion that prices will not recede much further at present; but it must be borne in mind that the output is certain to be largely increased during the next year, and this is the main point for consideration. However, the increased demand anticipated for winter, and the prospect of the speedy starting of some, if not all, the finished ironworks lately stopped in South Durham, owing to the decline in the price of pig-iron mainly, has for the present completely arrested the fall of prices, as will be seen:—Best house coals, 22s. to 24s. per ton; gas coals, 19s. per ton; steam coals, from 19s. to 21s. per ton. The demand for coke is pretty strong, and prices are as follows in South Durham:—35s. to 37s. 6d. per ton, and manufacturing coal 16s. per ton.

Workmen of all kinds required at collieries are becoming very plentiful; numbers of factory workers and other hands are turning their attention to the coal mines, and as most branches of the iron trade are dull numbers of ironworkers and other hands have gone to work at the mines. Certainly miners of all kinds are more plentiful than they have been for the last two years. New workings for coal are in progress at a great number of places in this district, most of the large companies are making additions to their concerns, and many entirely new workings are also in progress. The large royalty which was lost for the time by the unfortunate and extraordinary accident at Hartley will be worked shortly, the Seaton Delaval coal Company having leased it. Operations are in progress for the purpose of removing the water and working the coal. A large quantity of excellent steam coal will be got there. This is the locality where the famous Hartley steam coal was first found, which has given a name to steam coal of first-class quality in this district since that time.

The Chemical Trade is very brisk, there being a good demand for shipment both to the Continent, America, &c.; and, consequently, prices are well maintained. The iron shipbuilding trade continues very quiet, although a few good ships have been turned out lately, both on the Tyne and Wear. The general engine and foundry business is also very quiet, and there appears to be a general tendency to a less amount of business in all branches of trade, although it is remarkable that there is no material reduction in the value of any

article, with the exception of coal and iron. No doubt the introduction of shorter hours and the high rate of wages paid may account for this. The value of pig-iron continues to fall, so that the prospect for finished ironworks in this district has improved much, and it is confidently expected that the works lately stopped will be resumed very shortly.

Mr. James Hay, jun., has been presented with a splendid gold chain and appendages, and a gold scarf pin, as a token of respect on his leaving Belside for Widderington Colliery, to fill a more important situation, that of manager. Mr. Morpeth occupied the chair, and Mr. Jackson the vice-chair. Mr. Rutherford made the presentation.

The workmen of the Dearham Main Collieries, near Maryport, have presented Mr. G. W. Ross, engineer and surface manager, with an elegant gold watch, a case of drawing instruments, and a handsome gold guard ring for Mr. Ross, on the occasion of his leaving Dearham for a more responsible situation in the county of Durham.

REPORT FROM SCOTLAND.

Aug. 13.—The Warrant Market has been very inanimate during the past week, and a decided reduction has taken place in prices. On Friday the closing quotation was 106s., and on Monday business was done from 105s. 6d. to 105s. 9d. Yesterday the market opened at 105s., receded to 104s. 6d., and closed rather firmer again with buyers at 104s. 9d., and sellers asking 105s. To-day the market commenced with a firmer tone, and business was done from 104s. 9d. to 105s. 6d., closing at the best. A small quantity of iron is now being sent into store-keepers' yards, which will meanwhile counterbalance the deliveries *ex-store*. The prices of shipping iron are not much altered, but the tendency is still downwards:—

	No. 1.	No. 3.
G. M. B., at Glasgow (deliverable alongside)	108s. 6d.	105s. 6d.
Gartsherrie ditto	118 9	110 0
Coltness ditto	125 0	108 0
Summerlee ditto	117 6	108 0
Carnbroe ditto	113 0	108 0
Monkland ditto	112 0	108 0
Clyde ditto	112 0	108 0
Govan, at Broonielaw ditto	112 0	108 0
Langloan, at Port Dundas ditto	122 6	108 0
Calder ditto	117 6	108 0
Glengarnock, at Ardrossan ditto	113 6	108 0
Eglinton ditto	110 0	108 0
Dalmellington ditto	110 0	107 0
Carrown, at Grangemouth, selected, ditto	117 6	—
Shotts, at Leith ditto	117 6	110 0
Kinnel, at Boness ditto	115 0	108 0
Bar iron	£12 10 to £13 0	
Nail rods	13 0	
		SHIPMENTS.
Week ending August 10, 1872	Tons 17,341	
Week ending August 9, 1873	8,066	
Decrease	9,275	
Total decrease since Dec. 25, 1872	187,149	
Imports of Middlesbrough pig-iron into Grangemouth:—	Tons 1,325	
Week ending August 10, 1872	1,250	
Week ending August 9, 1873	75	
Decrease	75	
Total decrease for 1873	75	

Notwithstanding the marked decrease in the Pig-Iron shipments of the year, smelters seem disinclined to damp out any more furnaces, and are going into stock: 1350 tons have been placed in store this week, against about 1000 taken out—a new feature in the trade, and one which favours the probability of an early further reduction in pigs, if storing is systematically continued for some time. Messrs. Colin Dunlop and Co., of Clyde and Quarter Ironworks, have purchased the compact mineral estate of Simsonland, near Quarter, for the sum of £3,000*l.*, the present occupant's father having purchased it a number of years ago for the trifling sum of 300*l.*

The approaching fall has brought out a number of orders for Finished Iron for immediate shipment, which is communicating a temporary activity to our malleable works, but as the specifications are small the spurt is expected to be of short duration. The quotations have all been made under list price, with the view of inducing buyers to specify, and the number of orders which has been brought out is quite cheering—may it continue. In ship iron there is some work in hand, and the plate-mills are being tolerably engaged; engineers are also well employed, and from the Clyde machinery, valued at a total of 11,300*l.*, has been shipped this week to Rangoon. Work was brought to a stand by a strike at the Glasgow Iron Company's Works, Motherwell, last week, and on Thursday warrants of ejectment were applied for against those men who were in possession of houses belonging to the company. These were granted, but we are glad to state that the strike has been brought to a close by the hands resuming work, wiser but poorer men.

The demand for Coal for shipment continues unabated, although the shipments for the week do not show any marked increase over those for last year, the relative figures being 32,709 tons, against 32,167 tons in the corresponding week of 1872.

The miners having adjusted terms with the mineowners regarding the "Special Rules," have found another grievance in the weighing question, and in the want of weights at every pithead. Your very timely article on this subject in last week's Journal was very much required, and should suggest to the miners the necessity of practising a little patience till weights can be got out of the hands of makers. Then, the price to be paid per ton is also available as a grievance; the colliers demand the same price per ton of 20 cwt., as they before received for the 24 to 26 cwt. They cannot see that there should be any difference, and have patriotically agreed to submit the question to arbitration. The question is one which even a novice in arithmetic might easily settle for himself, but the miners have fallen in love with arbitration, and to the arbiter *pro forma* the question must go. If the digging of 24 to 26 cwt. of coal cost so much, how much should 20 cwt. cost? The arbiter can have no difficulty here, and perhaps the work of the School Board will soon remove such questions from the category of those seeking a solution by arbitration.

The first annual meeting of Merry and Cuninghame (Limited) will be held here on 22nd inst., to receive the directors' report and balance-sheet, and to transact the ordinary annual business of the company.

New pits are being opened up in the New Kilpatrick district, and Merry and Cuninghame (Limited) have been busy during the summer sinking two shafts on the Cowdenhill estate, north of the Forth and Clyde Canal. A new coal pit lately sunk by the same firm in this district is yielding coal of fair quality. The Monkland Iron and Steel Company have leased the minerals on the Cowdenhill estate to the south of the Forth and Clyde Canal, and new pits will also shortly be sunk there.

Mr. David Wingate, manager at Craigneguk Colliery (Messrs. Merry and Cuninghame), has been presented with a handsome writing desk, and a purse containing nearly 100*l.* Mrs. Wingate was also presented with a valuable ring.

BRORA COAL FIELDS.—The output of the mines at Brora, though as yet small, is satisfactory in quality and in the promise of quantity. The sulphurous portion is confined to a narrow band of about 3 in., which is easily clipped and detached. The working of the mine has not reached that point that the public can be supplied from the mouth of the pit.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

Aug. 14.—A steady business has been done during the week in the lead districts, but there has been of late no marked increase in the production of ore. The collieries have been very quiet, especially in the early part of the week, owing to the great demonstration which took place at Chesterfield on Monday. It is worthy of notice that the large body of miners employed by the Staveley Company are not members of the Association, having agreed with the managing director, Mr. C. Markham, to hold aloof. Such they have found to their advantage, for in no part of the entire coal field have the workmen been so well cared for, or such ample provision made for the culture and comfort of their families. The trade of Derbyshire is about the same as when last noticed, both in coal and iron. With regard to the former the demand is unusually good for the season, and a large business has been done with the metropolis from Clay Cross in house coal. The steelworks at Dronfield have been very busy, being capable of blowing 700 tons of Bessemer a week, most of which is made into rails. At Dronfield, Upperton, and Chesterfield preparations are being made for sinking several new collieries, whilst in the Nottingham district new collieries are also being opened out; so that from one end of the great Midland coal field to the other the minerals are being rapidly brought to light—a fact mainly due to the very high prices of the last 12 months.

Trade in Sheffield is quiet, there being a good demand for shipment both to the Continent, America, &c.; and, consequently, prices are well maintained. The iron shipbuilding trade continues very quiet, although a few good ships have been turned out lately, both on the Tyne and Wear. The general engine and foundry business is also very quiet, and there appears to be a general tendency to a less amount of business in all branches of trade, although it is remarkable that there is no material reduction in the value of any

article, with the exception of coal and iron. No doubt the introduction of shorter hours and the high rate of wages paid may account for this. The value of pig-iron continues to fall, so that the prospect for finished ironworks in this district has improved much, and it is confidently expected that the works lately stopped will be resumed very shortly.

Mr. James Hay, jun., has been presented with a splendid gold chain and appendages, and a gold scarf pin, as a token of respect on his leaving Belside for Widderington Colliery, to fill a more important situation, that of manager. Mr. Morpeth occupied the chair, and Mr. Jackson the vice-chair. Mr. Rutherford made the presentation.

REPORT FROM MONMOUTH AND SOUTH WALES.

Aug. 14.—Reports as to the position of the Iron Trade are somewhat more hopeful. There has not yet been much improvement in the amount of business transacted, but buyers are beginning to evince more anxiety to secure supplies of manufactured iron. There is every reason for believing that stocks are running very low everywhere, and purchasers must give out orders sooner or later, or there will be no iron in their hands. It is likely, also, that requirements will increase in the next three months, as an influx of orders is looked for on German account when the reduced import tariff in that country will come in force. Australia has already begun to be a more extensive customer, and there will, probably, be more activity in placing orders before the ports of the northern countries close for the winter. The only obstruction to a very active trade at present is undoubtedly the high price quoted for every manufactured commodity; but as now there is no prospect of manufacturers being able to sell at lower rates, there must be a revival in business. American business is still limited in this as well as other districts, and the rivalry of American manufacturers is becoming more apparent. The probability, therefore, is that the makers of this country will never again clear such large quantities of finished iron to the United States as they have done during late years. There has been more doing in bars of late. Nearly all the works continue in good employ, and where a little slackness occurs there is not much complaining, as the millmen are able to earn high wages without working full time, and they are not averse to a holiday when they can get one. During the past week the Dowlaish Iron Company have cleared 45 tons of bar to Lisbon, and the Lynvy Company 97 tons bar; Blaenavon Company, 1100 tons of rail to Rotterdam; Landore (Siemens), 1150 tons of steel rails to Crotstadt; Oldfield, 230 tons bar to Naples; Ebbo Vale Company, 884 tons rail to Tugundrog; Nant-y-Glo and Blaina Company, 299 tons rail; Ebbo Vale Company, 375 tons rail to Toronto; Watts, Richards, and Co., 161 tons rail to Henebion; Aberdare Iron Company, 335 tons of rail to Culmina; Guest and Co., 70 tons bar, and Booker and Co., 45 tons of sheet, to Rotterdam; R. Cowell and Co., 600 tons rail to Lisbon; Dowlaish Iron Company, 1040 tons rail to New Fairwater; Ebbo Vale Company, 850 tons rail to Brazil, and 575 tons to Genitsche; Nant-y-Glo and Blaina Company, 720 tons rail; Ebbo Vale Company, 700 tons to Crotstadt, and 200 tons to Amritos; Aberdare Company, 120 tons to Matazuza, and the Nant-y-Glo and Blaina Company, 1000 tons of rail to Odessa. The Tin-Plate Works continue in pretty steady employ, but the trade, on the whole, is quiet.

The Coal Trade continues in an unsettled state. There are still disagreements about the weighing question, notwithstanding that the representatives of the men came to an amicable arrangement with the masters more than a fortnight ago. The Union counselled the men to agree to a re-adjustment of the prices paid for cutting when the imperial ton was adopted, and the majority of the men were disposed to follow the advice, but there have been a large number of dissentients, and several of the collieries have been idle in consequence. What these men want is that the difference in the payment for the old and the new ton should be divided between the men and the masters, but to this the latter will not agree. There are some pits still idle, and the output of coal in the district altogether has been much below the average ever since the beginning of the month. Under such a state of things there is little prospect of the price of coal being lower. There is much about the same active demand as for some time past. The returns of the local ports during the last month will compare favourably with those for the corresponding month of last year.

A number of colliers are emigrating from this district to New Zealand by the aid of the Government of that country.

The workmen and others connected with the works of the Messrs. Vivian and Sons, at Swansea, have presented Mr. Edward Daniel, who has been the colliery agent to the company for the last 24 years, with a handsome and valuable testimonial, including a life-size portrait of himself. The presentation was made by Mrs. Vivian, and attended with considerable ceremony. Mr. Hussey Vivian and others spoke in very eulogistic terms of Mr. Daniel.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Aug. 14.—The South Staffordshire Coal and Iron Trades have been seriously interrupted this week by the holidays attendant on the race festival at Wolverhampton. The collieries and finished ironworks resumed operations this (Thursday) morning, but many of the hands did not put in an appearance, and the aggregate output of coal and iron will be very small. The Black Country is just now in the midst of the popular holidays, "wakes" occurring almost every week in some part of the district. One result of these interruptions to the industrial operations of the district is the strengthening of the firm tone of the fuel market, stocks everywhere being reported very low. It is, indeed, confidently predicted in some quarters that when the winter demand for coal commences quotations will be yet further advanced. Ironstone is in steady request, at 25s. for white, and 26s. for gubbin, the market being comparatively unaffected by the large supplies of hydrates, hematites, and other ores which continue to arrive from outlying districts. The pig-iron manufacturers are, as a rule, fairly supplied with orders quotations being at the rate of 7s. for all mine hot-blast; 8s. for ditto cold-blast; 6s. 5s. to 6s. 10s. for part mine with a modicum of flue cinder; and 4s. 15s. to 5s. 5s. per ton for cinder only. The charcoal-iron furnaces at Bradley, which are the only ones of the kind in the district, are yielding a steady output, for which there is, on the whole, a satisfactory demand. Finished iron remains at 14s. per ton for marked bars, according to the official standard, but good merchantable bars are to be had at 13s. per ton, and in some instances as low as 12s. 10s. per ton has been accepted. Sheets (singles) are 14

AUG. 16, 1873.

THE MINING JOURNAL.

TO COAL MERCHANTS, AND OTHERS.

THE TUNBRIDGE WELLS LOCAL BOARD are ready to receive TENDERS for the SUPPLY of ONE HUNDRED TONS of STEAM COALS from either of the following veins:-
NIXON, TAYLOR, AND CORYS "NAVIGATION."
POWELL'S "DURFYN."
FOUGHILL'S "ABERDARE."
DAVIES'S "BLAENGWAWR."
"TANFIELD MOOR COALS" (this vein preferred).
The same to be delivered at the Water works, at Penbury, Kent, in accordance with the orders of the engineer.
Tenders to be sent in by Monday, the 1st of September, 1873.
The lowest or any tender will not necessarily be accepted.
Address for further particulars to—

THOS. LEWIS, Clerk to the Local Board,

Town Hall, Tunbridge Wells, 6th August, 1873.

GOLD MINING PROPERTY TO BE SOLD.

TENDERS are INVITED for the PURCHASE of an extensive GOLD MINING PROPERTY, consisting of 250 mining areas (each 250 ft. by 250 acres), situated in LAWRENCESTOWN, NOVA SCOTIA. The plan includes a CRUSHING MILL, or 10 stamps, with foundations for more stamps. Tenders will be received up to the 15th day of August next, under sealed covers, addressed to Mr. W. M. WOODWARD, 7, Westminster-chambers, Victoria-street, Westminster, from whom further particulars may be obtained. The vendor does not bind himself to accept the highest or any tender.

TIN AND COPPER MINE.

THE LESSEE of an EXTENSIVE and VALUABLE MINING PROPERTY, situated in one of the best mineral producing districts in the COUNTY OF CORNWALL, seeks the ASSISTANCE of an INFLUENTIAL GENTLEMAN in FORMING a COMPANY to WORK the same. Several large lodes containing mineral near the surface have been discovered; one of these lodes has been wrought on to a shallow depth, and tin returned from it of the value of about £100 per ton sterling, when the price was from 30 to 50 per cent. less than it is now. This ad-drained, an immense quantity of tin-stuff would be available for stamping, and monthly returns of tin could be regularly made.

The property adjoins mines which have paid the adventurers immense profits, and has the advantage of being near a sea port.

For further particulars, and reports from the most eminent mining authorities, apply to Mr. E. PEARCE, Biscoe, Par Station, Cornwall.

BRAUCH DU QUARRY, near FESTINIOG.

IN CONSEQUENCE of the Bala and Festiniog Line of Rail, which passes within half a mile of the quarry, having passed through both Houses of Parliament, the Proprietors are anxious to develop the resources of the VALUABLE QUARRY, and are prepared to TREAT WITH CAPITALISTS BY LEASING, WORKING, or SELLING the same. The slate and slabs made at this quarry are well known for their strength and durability, and now that a line of rail will connect it with all portions of England, the production being unlimited, and the machinery also embracing the most recent improvements, warrant the company in stating that rarely does such an opportunity offer for profitable investment. For further particulars, apply to Mr. J. A. FORREST, 58, Lime-street, Liverpool.

FOR SALE, TWO FIXED, or WHARF STEAM CRANES, which have been tested with 10 ton loads, and are specially adapted for tipping railway wagons. They are equal to their being complete in every respect, all the working parts are in duplicate. The jibs are 21 ft. 10 in. radius and 28 ft. 6 in. high. The cranes are very quick in action, all the movements being performed by steam-power. They will be disposed of together or separately. For further information, apply to Messrs. W. E. McLaren and Co., 50, Renfield-street, Glasgow.

SOUTH FOWEY CONSOLS MINE, NEAR PAR STATION.

TO BE SOLD, BY PRIVATE CONTRACT, AN EXCELLENT WATER-WHEEL, 40 ft. by 5 ft., with cast iron axle, ring, and sockets, complete with 4 ft. crank attached; shaft, lagging, and counter balance, with about 29 fms. of 2½ in. iron rods; pulleys and stands; 8 arm capstan and sheaves; 31 13 in. and 10 in. pumps; 3 11 in., 9 in., and 8 in. matchings; 3 12 in. 11 in., and 9 in. dredges; 3 12 in., 10 in., and 8 in. windflores; 25 fms. of 9 in. 10 in., and 11 in. main rods, side plates, and rod plates; about 50 fms. 1½ in. basket rods; with other useful materials and timber—the whole being in excellent condition, and as good as new.

For particulars and price, apply to Capt. in PUCKEY, St. Blazey.

FINE OPPORTUNITY FOR MAKING A FORTUNE.

TO BE SOLD, PART OR ENTIRE (former preferred) of a COLLIERY ROYALTY, of about 170 acres, in NORTH WALES. The pit is sunk 40 yards deep to the seam containing the best description of Coal. There are six other seams of good coal (the first being King Coal, only 14 yards under it), and one seam of ironstone. Its situation being half a mile from a railway station, and also admirably adapted for land sale, close to excellent roads, the mining expenses, royalty, rent, and outlay small for a probable get in a few weeks of 40 tons daily at an almost fabulous profit, under the present undertaking one would worthy the immediate attention of capitalists, coal-dealers, gas manufacturers, or colliery proprietors.

Address, "Q. E. D.", care of Mr. Watson, 15, Fenwick-street, Liverpool.

RARE OPPORTUNITY FOR MAKING A FORTUNE.

TO BE SOLD, PART OR ENTIRE (former preferred) of a COLLIERY ROYALTY in NORTH WALES, bordering on the London and North-Western Railway, and close to a shipping port. There are several shafts partially sunk, some requiring to be sunk still deeper, but operations stopped for want of capital. There are four seams of good house and steam coal proved in an area upwards of 400 acres of surface. Holder will sell the entire, including the present plant (not sufficiently powerful for sinking further) for £1000, but would undertake a PARTNER, who would advance the necessary capital for half profits, which in the present state of the coal trade are almost fabulous.

Address, "Vulcan," care of Mr. Watson, 15, Fenwick-street, Liverpool.

LINCOLNSHIRE IRONSTONE.

ESTATE OF V. CARY-ELWES, Esq.

TO BE LET, ON LEASE, TO RESPONSIBLE LESSEES, THE MAIN BED of IRONSTONE, under an area of 322 acres or thereabouts in extent, forming a PORTION of the RISBY ESTATE.

The property is situated within 15 chains of the Trent and Ancholme Branch of the Manchester, Sheffield, and Lincolnshire Railway, at a point distant 26 miles on that railway from Doncaster. A right of way for a railway to communicate with the Trent and Ancholme Railway has been secured.

The main bed of ironstone is worked upon the adjoining estate, belonging to R. Winn, Esq., M.P.

For further particulars and to treat, apply to HENRY H. CAVE, Esq., Brigg, Lincolnshire; or to Messrs. DORSON, BROWN, and ADAMS, Guildhall Chambers, Cardiff.

HEMATITE IRON ORE ROYALTY IN CUMBERLAND.

TO BE LET, with possession on 11th November next, THE ROYALTY of HEMATITE IRON ORE, under an Estate called TOD-HOLES, situated in the parish of CLEATOR, in the county of CUMBERLAND, containing FORTY-TWO ACRES, or thereabouts.

The property is situated in the immediate neighbourhood of some of the most productive mines in the Cleator and Frizington district, and distant about half a mile from the Whitehaven, Cleator, and Egremont Railway.

Further particulars may be had on applying to Mr. WYLDE, Orchard House, Cleator Moor, who will show the land; to Mr. J. R. MUSGRAVE, Solicitor, Whitehaven; or to Messrs. LUMB and HOWSON, Solicitors, Whitehaven, by whom tenders in writing will be received until Thursday, 4th September next.

Whitehaven, 6th August, 1873.

LEAD MINES IN THE COUNTIES OF DURHAM AND NORTHUMBERLAND.

TO BE LET, ON LEASE, with immediate possession, the HUNSTANWORTH AND NEWBIGGIN ROYALTIES the former about 354 acres and the latter 200 acres, or thereabouts.

The Hunstanworth Royalty adjoins the celebrated W.B. Lead Mines, and has for many years yielded large quantities of lead ore, and much of the ground is undeveloped.

For particulars, apply to JOSEPH DODDS, Esq., M.P., No. 4, Spring gardens, Charing-cross, London, S.W., and Stockton-on-Tees; or Mr. THOMAS J. BEWICK, Esq., No. 4, Queen-square, London, S.W., and Haydon Bridge, Northumberland.

NEW HORIZONTAL ENGINES ON SALE.—ONE 13½ in. cylinder, 30 in. stroke, with governors, pump, fly wheel.

JOHN MOORE, 40, LLOYD STREET, MANCHESTER.

HORIZONTAL WINDING ENGINE, 12½ in. cylinder, 30 in.

stroke, slot link reversing motion, and 6 ft. drum. TWO 6 horse HORIZONTAL ENGINES, 8 in. bore, 16 in. stroke, with governors, pump and fly wheel, &c.

TWO SINGLE FLUED BOILERS, about 31 ft. by 6 ft., with fittings as worked, tested to 100 lbs.

DOUBLE FLUED BOILER, 28 ft. by 7 ft., with fittings; just left off working, tested for very high pressure.

6 ft. RADIAL DRILLING MACHINE, 10 in. stroke.

SLOTTING MACHINE, DOUBLE NUT SHAPING MACHINE.

DOUBLE WHEEL LATHE, for 5 ft. wheels, by COLLIER.

COMPLETE PLANT of ENGINEERING WORKS, containing first-rate modern tools by eminent makers. Offers sought for the lot.

WHEATLEY KIRK AND PRICE, ALBERT SQUARE, MANCHESTER.

HORIZONTAL ENGINES, of most approved construction, from 8 to 60 in. cylinder, for WINDING and GENERAL PURPOSES.

Some good secondhand HORIZONTAL ENGINES ON SALE, single and in pairs, from 14 inches to 20 inches cylinders, suitable for winding, &c. GOOD BOILERS of all sizes.

CREASE AND CO., 39, CONGREVE STREET, BIRMINGHAM.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Devon.

In the MATTER of the COMPANIES ACTS, 1862 and 1867, and of the NEW EAST WHEAL RUSSELL, otherwise the WHEAL COURNTAY MINING COMPANY.—Notice is hereby given, that ALL CREDITORS are required, on or before Saturday, the 23rd day of August instant, to SEND IN THEIR NAMES AND ADDRESSES, and the AMOUNTS and PARTICULARS of their SEVERAL CLAIMS, to FREDERICK MARSHALL, Esq., the Registrar of the said Court, at Truro.

DATED Registrar's Office, Truro, this 11th day of August, 1873.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Devon.

In the MATTER of the COMPANIES ACTS, 1862 and 1867, and of the NEW EAST WHEAL RUSSELL, otherwise the WHEAL COURNTAY MINING COMPANY.—By an Order made by His Honor the Vice Warden of the Stannaries in the above Muster, dated this day, on the petition of James Pool, of Devonport, within the said Stannaries, Merchant, a creditor of the said company, it was ordered that the NEW EAST WHEAL RUSSELL, otherwise the WHEAL COURNTAY MINING COMPANY, should be WOUND-D-UP by this Court under the provisions of the Companies Act, 1862.

J. G. CHILCOTT, Solicitor, Truro
(Agent for Edward Chilcott, Tavistock, Solicitor for the Petitioner).

Dated Truro, this 11th day of August, 1873.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

In the MATTER of the COMPANIES ACT, 1862, and of the NEW WHEAL CHARLOTTE MINING COMPANY (LIMITED).—TO BE SOLD, under the direction of the Registrar of the said Court, BY PUBLIC AUCTION, on Wednesday, the 20th day of August instant, at Eleven o'clock, in the forenoon, at the New Wheal Charlotte Mine, in the parish of St. Agnes, within the said Stannaries, in one or more lots, and subject to such conditions as shall be then and there produced, all the INTEREST of the said COMPANY in the MINES worked by the said company, and also the undenominated

MINING MACHINERY, MATERIALS, AND EFFECTS, viz.:—

56 in. cylinder PUMPING ENGINE, boiler 10 tons; double action DRAWING ENGINE, two fly-wheels, 22 in. cylinder, boiler 8 tons, and fittings; winding cage, and 100 fms. machine chain; stands and sheaves; a quantity of pumps of various sizes; account house and office furniture; and a variety of other articles and effects in general use in mines, full particulars whereof

To view the same, apply to the Bailiff in charge at the mine, and for further particulars to—

Messrs. CARLYON AND PAULL, Solicitors, Truro; and to

M. R. HOLLOWAY, Solicitor, Redruth.

Dated Registrar's Office, Truro, August 14th, 1873.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

In the MATTER of the COMPANIES ACT, 1862, and of the WEST DRAKE WALLS MINING COMPANY.—TENDERS WILL BE RECEIVED at the Registrar's Office, Truro, until Saturday, the 23rd day of August instant, stating the HIGHEST PRICE which will be given for all the INTEREST of the COMPANY in the LEASE under which the operations of the company have been carried on, and also for the WHOLE of the

MINING MACHINERY, MATERIALS, AND EFFECTS,

At and upon West Drake Walls Mine, near Calstock, within the said Stannaries, comprising—

A 40 in. cylinder PUMPING ENGINE, 9 ft. stroke in cylinder, and 7 ft. stroke in shaft, with boiler 12 tons; balance bob; 75 fms. of 11 in. pitwork, with connections, and numerous other effects in general use in mines, full particulars whereof may be known on application at the Registrar's Office of the said Court.

To view the same, apply to the Bailiff in charge at the mine.

HODGE, HOCKIN, AND MARRACK, Solicitors, Truro.

Dated Registrar's Office, Truro, August 14, 1873.

[IN CHANCERY.]

1870. T. NO. 27.

TEAGUE v. TEAGUE.

TO BE SOLD.

Pursuant to a Decree of the High Court of Chancery made in a Cause "TEAGUE v. TEAGUE," with the approbation of the Vice Chancellor WICKENS,

BY MR. HENRY BRUTON,

The Person appointed by the said Judge, at the ANGEL HOTEL, at COLEFORD, in the county of Gloucester, on FRIDAY, the 22nd day of August, 1873, at Four o'clock in the afternoon, in Three Lots, certain COLLIESIES.

Lot 1.—TWO FREEHOLD COTTAGES, and the following

SHARES in certain FREEHOLD COAL MINES, namely,—

Lot 2.—TWO THIRD PARTS or SHARES of WIMBELOW or WIMBERRY or HOPEWELL LEVEL COLLIERY.

Lot 3.—TWENTY-SIX FORTY-EIGHTH PARTS or SHARES of the POTLID LEVEL COLLIERY, and certain LEASEHOLD PIECES of LAND held there with.

Particulars and conditions of sale (gratis) of Messrs. BRUTON, KNOWLES, and BRUTON, Albion Chambers, King street, Gloucester; of Messrs. WEBB, STOCK, and BURR, 11, Argyl street, Regent-street, London; of Mr. TOM GOULD, of Newnham, Gloucester, Solicitor; of Messrs. ROGERSON and FORD, of Chancery-lane, London; and of Messrs. CLARKE, SON, and RAWLINS, of 69, Gresham House, Old Broad street, London, Solicitors.

MONDAY, SEPTEMBER 1ST, AT TWELVE O'CLOCK.

THE GREAT WHEAL BUSY MINES, KENWYN, CORNWALL.

JOHN THOMAS, Auctioneer, Redruth, has been favoured with instructions to SELL, AT PUBLIC AUCTION, at the Account-house of the Mine, on Monday, Sept. 1, at Twelve for One o'clock precisely (under such conditions as will then and there be produced and read),

THE GREAT WHEAL BUSY MINES,

With the MACHINERY and MATERIALS and the LEASES under which they are worked as a going concern, in One Lot. The PLANT thereon comprises—

ONE 90 in. cylinder PUMPING ENGINE, 11 ft. stroke in cylinder, by 10 ft. in shaft, with FOUR Cornish BOILERS and STEAM RESERVOIR, &c., complete. The engine was manufactured by Messrs. Williams' Penzance Foundry Company, in 1872.

ONE 76 in. cylinder PUMPING ENGINE, 10 ft. stroke in cylinder, by 8 ft. in shaft, (not erected), with ONE 12 ton BOILER.

ONE 70 in. cylinder STAMPING ENGINE, with TWO BOILERS, two fly-wheels, and TWO STAMPS AXLES, with lifters, heads, cams, braces, &c., complete.

ONE 24 in. double-acting ROTARY ENGINE, 9 ft. stroke, with ONE 10 ton BOILER, fly-wheel, and STEAM CAPSTAN, &c., complete.

ONE 60 ft. SHEARS.

ONE 16 in. shrouded CAPSTAN ROPE, about 240 fms. long, by Hawke and CO., 1872.

ONE cast iron BALANCE BOB, with wrought-iron box.

About 100 fathoms of 20 in. and 16 in. PITWORK, including ONE PLUNGER LIFT and TWO DRAWING LIFTS, with working barrels, brass lined, and bottoms, complete, with brass valves and seatings, &c.

About 60 fms. of 16 in. PUMPS.

About 40 fms. of PLUNGER LIFT, 14 in.

About 15 fms. of PLUNGER LIFT, 13 in.

About 5 fms. of PLUNGER LIFT, 11 in.

About 120 fms. of pitch pine MAIN RODS, from 16½ to 15 in. square, with fastened strapping plates, bolts, staples and glands, &c.

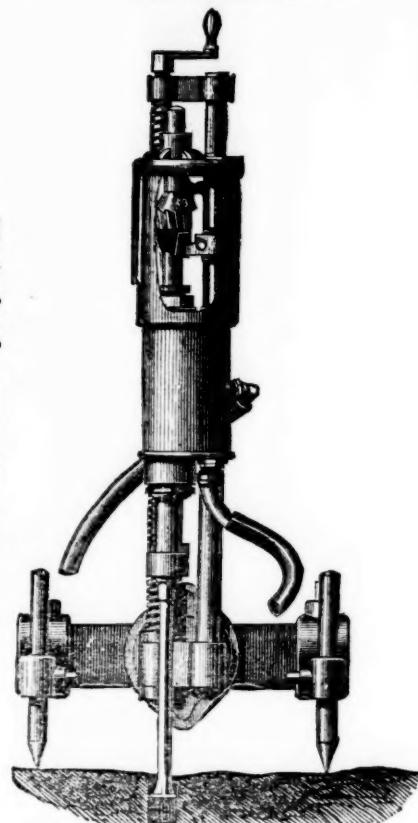
50 fms. 7½ in. MAIN RODS, &c.

ONE WEIGHBRIDGE (new), to weigh 10 tons, by Pooley and Sons, Liverpool.

ONE FITTING SHOP.



McKEAN'S ROCK DRILL,
FOR MINES, TUNNELS, QUARRIES, AND SUBMARINE WORK
500 TO 1000 STROKES PER MINUTE
(counted by mechanism).
PENETRATES GRANITE 6 TO 12 INCHES PER MINUTE.
MACHINES WARRANTED.



For full description, &c., see "MINING JOURNAL" of July 26, 1872,
and "MINING JOURNAL" of July 27, 1872.

One of McKEAN'S ROCK DRILLS may be seen working in Aberdeen granite from One to
Four o'clock daily at 42, Borough-road, S.E., London.

These machines are manufactured for McKean and Co. by
MESSRS. P. AND W. MACLELLAN, "CLUTHA IRONWORKS,"
GLASGOW;
MESSRS. VARRALL, ELWELL, AND MIDDLETON, AND MESSRS.
SAUTTER, LEMONNIER, AND CO., PARIS;
AND E. REMINGTON AND SONS, NEW YORK.

PORTABLE BOILERS, AIR COMPRESSORS, and BORING
STEEL furnished at lowest rates.

McKEAN AND CO.,
ENGINEERS,
42, BOROUGH ROAD, S.E., LONDON,
AND 5, RUE SCRIBE, PARIS.
Circulars sent free.

JOHN BOURNE AND CO.,
ENGINEERS, SHIPBUILDERS, AND CONTRACTORS,
66, MARK LANE, LONDON.

COMPOUND WINDING ENGINES,
Inexpensive, easily handled, and very economical in fuel.
COMPOUND ENGINES FOR ROLLING MILLS,
Without gearing and fly-wheel, and wholly exempt from break downs.
Pumping Engines, Blowing Engines, Steam Boilers, Hydraulic Machinery, Coal
Washing Machines, Shearing Machines, Cranes, and all kinds of Apparatus
required in Collieries and Ironworks.

SOLID DRAWN BRASS BOILER TUBES,
FOR LOCOMOTIVE AND MARINE BOILERS,
EITHER

MUNTZ'S OR GREEN'S PROCESS.
MUNTZ'S METAL COMPANY (LIMITED),
FRENCH WALLS,
NEAR BIRMINGHAM.

MINERS'

PRICKERS AND STEMMERS
OF
MUNTZ'S METAL.
ACCORDING TO THE NEW MINES REGULATION ACT.

BEST KNOWN MATERIAL.
MUNTZ'S METAL COMPANY (LIMITED),
FRENCH WALLS,
NEAR BIRMINGHAM.

THE DON LUBRICATING OIL
IS 40 PER CENT. CHEAPER THAN ORDINARY KINDS,
AND QUITE AS GOOD AND DURABLE.

It is absolutely free from the very common defect of gumming.
Mr. HEWLETT, of the Wigan Coal and Iron Company, says:—"I have used it for
two years, and find it answer exceedingly well for lubricating purposes."
Trials may be made at our risk.

AGENTS WANTED AT HOME AND ABROAD.

DUNCAN BROTHERS,
2, BLOMFIELD STREET, LONDON, E.C.

LOSS OF LIFE OR LIMB,
WITH THE CONSEQUENT
LOSS OF TIME AND MONEY,
CAUSED BY
ACCIDENTS OF ALL KINDS,
PROVIDED FOR BY A POLICY OF THE
RAILWAY PASSENGERS' ASSURANCE COMPANY.

An annual payment of £3 to £6 per week for injury,
£725,000 have been paid as compensation—
One out of every twelve Annual Policy Holders becoming a claimant each year.
For particulars, apply to the Clerks at the Railway Stations, to the Local Agents
or at the Office
44, CORNHILL, and 10, REGENT STREET, LONDON,
WILLIAM J. VIAN, Secretary.

COAL-CUTTING MACHINERY.

W. and S. FIRTH undertake to CUT, economically, the hardest
CANNEL, ANTHRACITE, SHALE, or ORDINARY COAL, ANY
DEPTH, UP TO FIVE FEET.

Apply,—

16, YORK PLACE, LEEDS.

DYNAMITE.

THE BRITISH DYNAMITE COMPANY (LIMITED).

Having erected extensive works at ARDEER, AYRSHIRE, near GLASGOW, with all Mr. NOBEL'S RECENT IMPROVEMENTS
for the MANUFACTURE of DYNAMITE, are prepared to EXECUTE ORDERS, to any extent, for HOME CONSUMPTION and for
EXPORT.—All communications to be addressed to the Head Offices of the Company,—

7, ROYAL BANK PLACE, GLASGOW.

JOHN DOWNIE, MANAGER AND SECRETARY.

J. WOOD ASTON AND CO., STOURBRIDGE

(WORKS AND OFFICES ADJOINING CRADLEY STATION),

Manufacturers of

CRANE, INCLINE, AND PIT CHAINS,

Also CHAIN CABLES, ANCHORS, and RIGGING CHAINS, IRON and STEEL SHOVELS, SPADES and
FORKS, ANVILS, VICES, SCYTHES, HAY and CHAFF KNIVES, PICKS, HAMMERS, NAILS,
RAILWAY and MINING TOOLS, FRYING PANS, BOWLS, LADLES, &c., &c.
Crab Winches, Pulley and Snatch Blocks, Screw and Lifting Jacks, Ship Knees, Forgings, and Use Iron of all descriptions,
STOURBRIDGE FIRE BRICKS AND CLAY.

Newcastle Daily Chronicle.

PUBLISHED EVERY MORNING.—PRICE ONE PENNY.

Newcastle Weekly Chronicle.

(ESTABLISHED 1764.)

PUBLISHED EVERY SATURDAY.—PRICE TWOPENCE.

The Publisher of the "Newcastle Daily Chronicle" and of the "Newcastle Weekly Chronicle" begs to direct attention to the
following declaration as to the circulation of these two newspapers.

The average circulation of the "Newcastle Daily Chronicle," as declared before the Right Worshipful the Mayor of Newcastle-on-Tyne, up to June 18, 1873, was

35,534.

From the detailed statement herewith annexed of the circulation of the "Newcastle Daily Chronicle" since that date it will be
seen that the average circulation is upwards of

40,000

Copies per day, which is believed to be

THE LARGEST CIRCULATION OF ANY PROVINCIAL DAILY NEWSPAPER.

The circulation of the "Newcastle Weekly Chronicle" is upwards of

31,000

Copies per week, and it is believed to be

EQUAL TO ANY OTHER PROVINCIAL WEEKLY NEWSPAPER PUBLISHED AT THE SAME PRICE.

CHIEF PUBLISHING OFFICE:—

CHRONICLE-BUILDINGS, NEWCASTLE-ON-TYNE.

BRANCH OFFICES:—

50, HOWARD STREET, NORTH SHIELDS, NORTHUMBERLAND.
DEAN STREET, SOUTH SHIELDS, DURHAM.
154, HIGH STREET, SUNDERLAND, DURHAM.
14, BRIDGE STREET, MIDDLESBOROUGH-ON-TEES, YORKSHIRE.

The Number of Copies of THE NEWCASTLE DAILY CHRONICLE

Printed during the week commencing June 16 was

ON MONDAY	...	...	...	JUNE 16	...	41,700
ON TUESDAY	...	...	...	JUNE 17	...	36,500
ON WEDNESDAY	...	...	...	JUNE 18	...	36,250
ON THURSDAY	...	...	...	JUNE 19	...	36,300
ON FRIDAY	...	...	...	JUNE 20	...	37,500
ON SATURDAY	...	...	...	JUNE 20	...	36,500

TOTAL NUMBER FOR SIX ISSUES ... 224,750

The Number of Copies of THE NEWCASTLE DAILY CHRONICLE

Printed during the week commencing June 23 was

ON MONDAY	...	...	...	JUNE 23	...	40,000
ON TUESDAY	...	...	...	JUNE 24	...	50,000
ON WEDNESDAY	...	...	...	JUNE 25	...	53,000
ON THURSDAY	...	...	...	JUNE 26	...	48,000
ON FRIDAY	...	...	...	JUNE 27	...	40,000
ON SATURDAY	...	...	...	JUNE 28	...	40,000

TOTAL NUMBER FOR SIX ISSUES ... 271,000

The Number of Copies of THE NEWCASTLE DAILY CHRONICLE

Printed during the week commencing June 30 was

ON MONDAY	...	...	...	JUNE 30	...	40,000
ON TUESDAY	...	...	...	JULY 1	...	39,500
ON WEDNESDAY	...	...	...	JULY 2	...	39,250
ON THURSDAY	...	...	...	JULY 3	...	39,500
ON FRIDAY	...	...	...	JULY 4	...	39,750
ON SATURDAY	...	...	...	JULY 5	...	40,250

TOTAL NUMBER FOR SIX ISSUES ... 230,250

And I make this solemn declaration, conscientiously believing the same to be true, and by virtue of the provisions of an Act made and passed in the sixth year of the reign of His late Majesty King William the Fourth, intituled "An Act to repeal an Act of the present Session of Parliament intituled an Act for the more Effectual Abolition of Oaths and Affirmations taken and made in various departments of the State, and to substitute declarations in lieu thereof, and for the more entire suppression of voluntary and extra judicial oaths and affidavits, and to make other provisions for the abolition of unnecessary oaths."

GEORGE NESBITT, F.M.I.A.

Declared at the Town Hall, Newcastle-upon-Tyne aforesaid, this Sixteenth day of June, 1873, before me.

RICHD. CALL, Mayor,
One of her Majesty's Justices of the Peace acting in and for
the borough and county of Newcastle-upon-Tyne.

THOMAS A. WARRINGTON,

CO-PATENTEE OF "THE POWER-JUMPER,"

SOLE AND EXCLUSIVE AGENT FOR

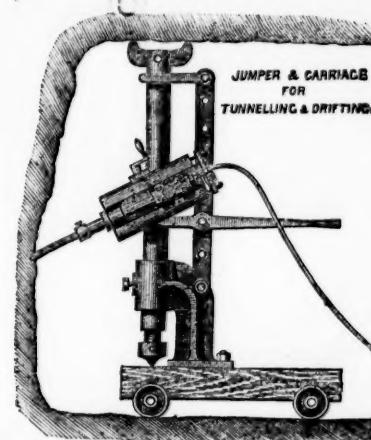
The "Hainotomon" Rock Drill,

FOR SIMPLICITY, ECONOMY, AND EFFICIENCY UNEQUALLED.

ENGINEER, AND CONTRACTOR FOR

MINING MACHINERY OF EVERY DESCRIPTION,

Rock Drills, Coal Cutters, Air Compressors,
Winding and Pumping Machinery, Steam Boilers, Stone
Breakers, Quartz Crushers, Stamps, &c.



30, KING STREET, CHEAPSIDE, LONDON, E.C.

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

CARDIFF MEETING, 1872.

CLAYTON AND SHUTTLEWORTH

Have much pleasure in announcing the following List of Prizes awarded them at this Show:—

"For the Best Portable Steam Engine"	THE FIRST PRIZE OF £40.
"For the Best Combined Portable Threshing Machine"	THE FIRST PRIZE OF £40.
"For the Best Combined Portable Trashing and Finishing Machine"	HIGH COMMENDATION.
"For the Best Straw and Hay Elevator (Stacking Machine)"	THE FIRST PRIZE OF £10.
"For the Best Straw Elevator"	THE PRIZE OF £5.
"For Patent Self-Feeding Apparatus for Threshing Machines"	SILVER MEDAL.

CLAYTON AND SHUTTLEWORTH have received FIRST PRIZES AT EVERY TRIAL OF THE ROYAL AGRICULTURAL SOCIETY at which they have competed since 1849; and on three occasions in succession—namely, at Bury St. Edmunds in 1867, at Oxford in 1870, and at Cardiff, as above, they have been awarded all the First Prizes offered for Steam Engines.

MOSCOW GREAT EXHIBITION, 1872, TWO GOLD MEDALS, viz.:—
PORTABLE STEAM ENGINE.—"For Simplicity of Construction."—GRAND GOLD MEDAL.
FOR COMBINED THRASHING MACHINES.—GRAND GOLD MEDAL.

Revised Catalogues free, by post, on application to—

CLAYTON AND SHUTTLEWORTH, LINCOLN,
78, LOMBARD STREET, LONDON, AND 35 AND 37, TARLETON STREET, LIVERPOOL.

Established 1844.

WHITLEY PARTNERS, RAILWAY WORKS, LEEDS,

ENGINEERS, FOUNDERS, AND LICENSEES,

MANUFACTURERS OF IMPROVED STEAM ENGINES, BOILERS, PUMPS, &c.

MAKERS, by Special Machinery, of PATENTED MECHANICAL INVENTIONS, comprising numerous Labour-saving Appliances and Economisers of Fuel and Motive Power.

CONTRACTORS TO THE EUROPEAN AND COLONIAL GOVERNMENTS AND CORPORATIONS.

MERCHANTS AND SHIPPERS OF MACHINERY, METALS, AND HARDWARE.

AWARDED

THE FIRST PRIZE MEDAL AT THE EXPOSITION UNIVERSELLE, PARIS, 1867, "For Improved Construction, Excellence of Material, and Superior Workmanship." TWO GRAND GOLD MEDALS AT THE MOSCOW INTERNATIONAL EXHIBITION, 1872. ALSO, THE FIRST PRIZE MEDALS AT LIEGE AND LYONS IN 1858, 1868, AND 1872.

REDUCTION IN PRICE OF PEET'S VALVES, CONSEQUENT UPON LARGE INCREASED SALES.

ILLUSTRATED CATALOGUES AND ESTIMATES ON APPLICATION.

Correspondence conducted in English, German, and French.

Samples of Specialties may be inspected at Stand No. 512, Group XIII., in the English Machinery Annex of the Vienna Exhibition, 1873.

For list of same see German Official and "British Section" Catalogues.

ARTESIAN BORINGS,

FOR WATER SUPPLY to TOWNS, LAND IRRIGATION, and MINERAL EXPLORATIONS may be executed of any diameter, from 6 in. to 36 in., and to any depth to 2000 ft., by the

PATENT STEAM EARTH-BORING MACHINE OF MATHER AND PLATT,

MAKERS OF LARGE PUMPS AND PUMPING ENGINES,

Improved Valves and Taps for Water, Steam, Gas, &c. Pistons and Air-pump Buckets fitted with Patent Elastic Metallic Packing,

Of which 6967 have been made to March, 1873.

ENGINEERS and MACHINE MAKERS to CALICO PRINTERS, BLEACHERS, DYERS, and FINISHERS.

SALFORD IRONWORKS, MANCHESTER.

PRICES AND PARTICULARS ON APPLICATION.

ISAAC DIXON, HATTON GARDEN, LIVERPOOL,

MANUFACTURER OF CORRUGATED CURVED SELF-SUPPORTING IRON ROOFS,

Galvanised or painted (the most economical form of roof up to 45 ft. span); also

WROUGHT-IRON FRAMED ROOFS, Of every description, suitable for wide spans.

These roofs are specially adapted for Forges, Rolling Mills, and general Roofing for Ironworks, Shipbuilding Yards, Mines, Collieries, Railways, &c.

For Roofs with Timber Framing, I. D.'s Galvanised or Painted Corrugated Sheets or Sheets form a durable and cheap covering, costing only about the same, when fixed complete, as Felt and Boards.

Iron Cottages, Stores, Offices, and Buildings of any size or design. Wrought-Iron Tanks.

DRAWINGS AND ESTIMATES ON APPLICATION.

THOMAS WARDEN & SON,

LIONEL STREET, BIRMINGHAM,

IRON AND STEEL MERCHANTS,

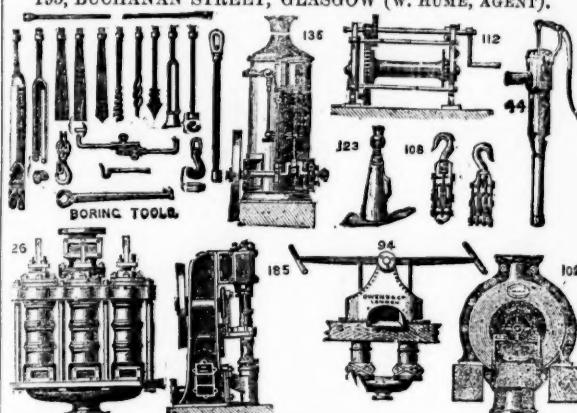
Manufacturer of Every Description of Railway, Colliery, and Contractors Plant

A LARGE STOCK OF SECOND HAND RAILS AND PLANT ALWAYS ON HAND:

S. OWENS AND CO.,

Hydraulic and General Engineers,
WHITEFRIARS STREET, FLEETSTREET, LONDON
AND AT

195, BUCHANAN STREET, GLASGOW (W. HUME, AGENT).



BORING TOOLS, for testing ground for Minerals. Bridge foundations, Artesian Wells, &c., to any depth.

No. 26.—Treble Barrel and other Deep Well Pumps.

No. 136.—Vertical and other Portable Steam Engines.

No. 185.—Horizontal and Vertical Steam Pumping Engines.

No. 112.—Single and Double-purchase Crab Winches.

No. 108.—Pulley Blocks of all sizes.

No. 123.—Bottle and other Lifting Jacks.

No. 94.—Double-barrel Pumps, for Mine or Quarry use.

No. 44.—Portable Wrought-iron Pumps, ditto ditto

No. 102.—Bernay's Patent Centrifugal Pumps, of all sizes.

ALSO EVERY OTHER DESCRIPTION OF HYDRAULIC AND GENERAL MACHINERY,

COMPRISED

TURBINES, WATER WHEELS, WIND ENGINES,

THE HYDRAULIC RAM, FIRE ENGINES, &c.

Catalogues and Estimates on application.

CORNISH MINING.—To show the importance of consulting practical authority, I have only to draw attention to the following fluctuations during the current year, and as the various companies are most loudly advocated when at their highest range the uninformed more especially should act on independent authorities. As a rule, market dealers and brokers are the worst advisers, for they are very often wholly influenced by the surface currents of events. Consultation free, or Selected List of Securities, 5s. Attendance 12 to 3 o'clock.

Doleforth, from £67½ down to £55, and dividends from £10 12s. 6d. annually to £1 quarterly; Tincroft, from £2 to £1½ quarterly, and the price of shares from £57 to £53; Trumpet, from £14 to £10 and £12; Van Consols, from £9 to £8; Providence, from £20 to £10 and £11; West Frances, West Seton, Cook's Kitchen, Devon, North Levant, Wheal Bassett, South Condurrow, and Herodsfoot, from dividend to non-dividend mines, and, in instances, greater fluctuations have transpired. Each of these mines present different and peculiar features, which those practically conversant with mining can alone explain. Every information and data supplied to intending investors by—

RICHARD TREDINICK,
Consulting Mining Engineer, 32, Fleet-street, London, E.C.

Just published (price 5s., by post 5s. 6d.),

THE MULTUM-IN-PARVO

ILLUSTRATED LIST OF HEAVY IRON AND STEEL TRADES,

RAILWAY PLANT, TOOLS, &c.

Containing Engravings of Railway Plant; Engineers', Iron Shipbuilders', Contractors', Plate-layers', Colliery and Mining Tools, &c., &c.

Purchasers may have their own title-pages inserted without additional cost by taking forty copies.

Compiled and published solely by—

EDWARD BROOKES
(Of the late firm of Brookes Brothers),
IRONFOUNDER, ENGINEER, MACHINIST, AND TOOL MAKER,
HIGH STREET, SHEFFIELD.

THE LIVERPOOL COLLEGE OF CHEMISTRY,

66, DUKE STREET, LIVERPOOL,
Specially devoted to the Study of CHEMISTRY, TECHNOLOGY, and ASSAYING.

Laboratories open throughout the year.

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(Successor to the late Dr. SHERIDAN MUSPRATT).

A Special Laboratory is devoted to Commercial Analyses of every description, and to Mineral Assays.

Manufacturers' and Smelters' Analyses and Assays undertaken on contract.

Patentees and Inventors advised and assisted; Works and Mines inspected; erection of Manufacturers' Plant supervised, &c.

TERMS AND FEES VERY MODERATE.

Further particulars and full prospectus on application to—

The Principal,
MARTIN MURPHY, F.C.S., &c.

THE IRON AND COAL TRADES' REVIEW:

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THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Clos. Pr.	Total divs.	Per share.	Last paid
1500 Alderley Edge, c, Cheshire*	10 0 0	—	—	—	11 11 8.	0 5 0	Apr. 1873
20000 Allt-y-Crib, t, Talbot*	2 0 0	—	—	—	0 6 6.	0 6	Feb. 1873
50000 Bampfylde, c, i, mn, Devon*	1 0 0	—	5½	5½ 5½	0 2 0.	0 2 0.	Jan. 1873
15000 Blaen Caefan, s-i, Cardigan* (24 sh.)	3 10 0	—	—	—	0 10 9.	—	—
15000 Boscastle Downs, t, c, St. Just*	3 0 0	—	—	—	0 5 6.	0 2 0.	Oct. 1871
200 Botallack, t, c, St. Just	91 5 0	—	140	120 120	619 15 0.	5 0 0	Aug. 1872
500 Bronyford, *s-i, (20000 Deb. B.S.p.c.)	100 0 0	—	—	—	110 0.	0 2 0.	Jan. 1872
4000 Brookwood, c, Buckfastleigh	1 16 0	—	—	—	2 8 6.	0 4 0.	Mar. 1873
3348 Cargill, s-i, Newlyn	4 15 11	—	2½	3 2½	4 16 8.	0 12 6.	Oct. 1872
6400 Cashwell, t, Cumberland*	2 10 0	—	—	—	1 4 0.	0 4 0.	Aug. 1872
7500 Castle Dinas, t, St. Columb*	2 0 0	—	—	—	0 8 0.	0 2 0.	Jan. 1873
1000 Carn Brea, c, Illogan	35 0 0	—	92½	87½ 92½	306 0.	0 2 0.	July 1873
6000 Cath, & Jane, t, Penrhynpendraeth	5 0 0	—	—	—	0 7 6.	0 7 6.	June 1873
2450 Cook's Kitchen, t, Illogan	19 14 9	—	19	17 18	11 17 0.	0 7 6.	June 1873
1024 Dev'en Gt. Consols, c, Tavistock**	0 12 0	—	2½	1½ 2	116 10 0.	0 12 0.	May 1872
4269 Dolcoath, t, c, Camborne	10 14 10	—	48	44 46	103 1 8.	0 15 0.	Aug. 1872
10000 East Balleswidden, t, Sancress*	1 0 0	—	—	—	0 1 8.	0 0 5.	May 1873
6144 East Caradon, c, St. Cleer	2 14 6	—	1½ 2	14	19 0.	0 2 0.	Oct. 1872
301 East Darren, t, Cardiganshire	32 0 0	—	—	—	213 10 0.	1 0 0.	Apr. 1873
6400 East Pool, t, Illogan	0 9 9	—	9	7½ 7¾	13 11 3.	0 2 6.	May 1873
5000 Exmouth, s-i, Christow	0 7 8	—	—	—	0 1 0.	0 1 0.	May 1873
2800 Foxdale, t, Isle of Man**	25 0 0	—	—	—	80 15 0.	0 10 0.	Sept. 1873
3950 Gawton, c, Tavistock	3 10 6	—	1½	1 1½	0 13 0.	0 5 0.	May 1872
40000 Glasgow Carn., c, [30,000 £1 p., 10,000 15s. p.]	24½	1½ 2	—	—	0 3 10.	0 3 0.	Jan. 1873
15000 Great Laxey, t, Isle of Man*	4 0 0	—	17	15½ 15½	16 1 0.	0 10 0.	June 1873
6505 Great Wheal Vor, t, Helston	40 0 0	—	—	—	15 19 6.	0 2 6.	June 1872
6400 Great Hurlh, t, Durham*	0 6 0	—	—	—	1 0 0.	0 4 0.	Aug. 1873
1024 Herdofst, t, near Liskeard?	8 10 0	—	7	4 6	62 5 0.	0 15 0.	Oct. 1872
60000 Hington Downs, c, Calstock†	6 4 0	—	4	3 3½	4 3 0.	0 5 0.	Dec. 1872
25000 Killaloe, s-i, Tipperary	1 0 0	—	—	—	0 3 11½	0 6 0.	Mar. 1873
6000 Killifreth, t, Chacewater	1 0 0	—	—	—	0 2 0.	0 2 0.	Jan. 1873
400 Lisburne, t, Cardiganshire	18 15 0	—	—	—	556 10 0.	1 0 0.	Mar. 1873
2754 Lovell, t, Wendron	3 0 0	—	—	—	0 12 0.	0 4 0.	Apr. 1873
6000 Minera Mining Co., t, Wrexham**	5 0 0	—	35	32½ 37½	63 1 8.	0 5 0.	Aug. 1873
20000 Mining Co. of Ireland, cl, c, l*	7 0 0	—	5½	5½ 5½	0 8 0.	0 3 8.	July 1872
8400 New Pembroke, t, Par Staton	5 0 0	—	—	—	0 17 0.	0 4 0.	July 1872
12000 North Hendre, t, Wales	2 10 0	—	—	—	0 5 0.	0 2 6.	June 1872
2000 North Levant, t, c, St. Just	10 12 0	—	8	6 8	4 13 0.	0 12 0.	Sept. 1872
5694 Ped-an-dreia, t, Redruth	8 2 0	—	—	—	0 5 0.	0 5 0.	Nov. 1871
5000 Penhalls, t, St. Agnes	3 0 0	—	3	2 3	2 18 8.	0 3 0.	May 1873
1772 Polberro, t, St. Agnes	15 0 0	—	—	—	39 19 10.	0 4 0.	Nov. 1872
20000 Poldice, t, St. Austell	10 0 0	—	—	—	1 12 6.	0 5 0.	Mar. 1872
20000 Prince Patrick, s-i, Holywell	1 0 0	—	—	—	1 10 0.	0 10 0.	Oct. 1870
1120 Providence, t, Uny Lelant	12 6 7	9	8 9	104 12 6.	0 10 0.	Sept. 1872	
12000 Roman Gravels, t, Salop*	7 10 0	—	21	20 21	2 8 0.	0 8 6.	July 1873
10000 Sheldon, d-i, St. Austell	1 0 0	—	—	—	0 1 0.	0 1 0.	Feb. 1872
2000 North Levant, t, c, St. Just	10 12 0	—	8	6 8	4 13 0.	0 12 0.	Sept. 1872
5694 Ped-an-dreia, t, Redruth	8 2 0	—	—	—	0 5 0.	0 5 0.	Nov. 1871
6000 Phoenix, t, c, Linkinhorne	4 3 4	—	—	—	39 19 10.	0 4 0.	Nov. 1872
1772 Polberro, t, St. Agnes	15 0 0	—	—	—	1 12 6.	0 5 0.	Mar. 1872
20000 Poldice, t, St. Austell	10 0 0	—	—	—	1 10 0.	0 10 0.	Oct. 1870
20000 Prince Patrick, s-i, Holywell	1 0 0	—	—	—	0 3 0.	0 2 0.	June 1873
1120 Providence, t, Uny Lelant	12 6 7	9	8 9	104 12 6.	0 10 0.	Sept. 1872	
12000 Roman Gravels, t, Salop*	7 10 0	—	21	20 21	2 8 0.	0 8 6.	July 1873
10000 Sheldon, d-i, St. Austell	1 0 0	—	—	—	0 1 0.	0 1 0.	Feb. 1872
20000 North Levant, t, c, St. Just	10 12 0	—	8	6 8	4 13 0.	0 12 0.	Sept. 1872
5694 Ped-an-dreia, t, Redruth	8 2 0	—	—	—	0 5 0.	0 5 0.	Nov. 1871
6000 Phoenix, t, c, Linkinhorne	4 3 4	—	—	—	39 19 10.	0 4 0.	Nov. 1872
1772 Polberro, t, St. Agnes	15 0 0	—	—	—	1 12 6.	0 5 0.	Mar. 1872
20000 Poldice, t, St. Austell	10 0 0	—	—	—	1 10 0.	0 10 0.	Oct. 1870
20000 Prince Patrick, s-i, Holywell	1 0 0	—	—	—	0 3 0.	0 2 0.	June 1873
1120 Providence, t, Uny Lelant	12 6 7	9	8 9	104 12 6.	0 10 0.	Sept. 1872	
12000 Roman Gravels, t, Salop*	7 10 0	—	21	20 21	2 8 0.	0 8 6.	July 1873
10000 Sheldon, d-i, St. Austell	1 0 0	—	—	—	0 1 0.	0 1 0.	Feb. 1872
20000 North Levant, t, c, St. Just	10 12 0	—	8	6 8	4 13 0.	0 12 0.	Sept. 1872
5694 Ped-an-dreia, t, Redruth	8 2 0	—	—	—	0 5 0.	0 5 0.	Nov. 1871
6000 Phoenix, t, c, Linkinhorne	4 3 4	—	—	—	39 19 10.	0 4 0.	Nov. 1872
1772 Polberro, t, St. Agnes	15 0 0	—	—	—	1 12 6.	0 5 0.	Mar. 1872
20000 Poldice, t, St. Austell	10 0 0	—	—	—	1 10 0.	0 10 0.	Oct. 1870
20000 Prince Patrick, s-i, Holywell	1 0 0	—	—	—	0 3 0.	0 2 0.	June 1873
1120 Providence, t, Uny Lelant	12 6 7	9	8 9	104 12 6.	0 10 0.	Sept. 1872	
12000 Roman Gravels, t, Salop*	7 10 0	—	21	20 21	2 8 0.	0 8 6.	July 1873
10000 Sheldon, d-i, St. Austell	1 0 0	—	—	—	0 1 0.	0 1 0.	Feb. 1872
20000 North Levant, t, c, St. Just	10 12 0	—	8	6 8	4 13 0.	0 12 0.	Sept. 1872
5694 Ped-an-dreia, t, Redruth	8 2 0	—	—	—	0 5 0.	0 5 0.	Nov. 1871
6000 Phoenix, t, c, Linkinhorne	4 3 4	—	—	—	39 19 10.	0 4 0.	Nov. 1872
1772 Polberro, t, St. Agnes	15 0 0	—	—	—	1 12 6.	0 5 0.	Mar. 1872
20000 Poldice, t, St. Austell	10 0 0	—	—	—	1 10 0.	0 10 0.	Oct. 1870
20000 Prince Patrick, s-i, Holywell	1 0 0	—	—	—	0 3 0.	0 2 0.	June 1873
1120 Providence, t, Uny Lelant	12 6 7	9	8 9	104 12 6.	0 10 0.	Sept. 1872	
12000 Roman Gravels, t, Salop*	7 10 0	—	21	20 21	2 8 0.	0 8 6.	July 1873
10000 Sheldon, d-i, St. Austell	1 0 0	—	—	—	0 1 0.	0 1 0.	Feb. 1872
20000 North Levant, t, c, St. Just	10 12 0	—	8	6 8	4 13 0.	0 12 0.	Sept. 1872
5694 Ped-an-dreia, t, Redruth	8 2 0	—	—	—	0 5 0.	0 5 0.	Nov. 1871
6000 Phoenix, t, c, Linkinhorne	4 3 4	—	—	—	39 19 10.	0 4 0.	Nov. 1872
1772 Polberro, t, St. Agnes	15 0 0	—	—	—	1 12 6.	0 5 0.	Mar. 1872
20000 Poldice, t, St. Austell	10 0 0	—	—	—	1 10 0.	0 10 0.	Oct. 1870
20000 Prince Patrick, s-i, Holywell	1 0 0	—	—	—	0 3 0.	0 2 0.	June 1873
1120 Providence, t, Uny Lelant	12 6 7	9	8 9	104 12 6.	0 10 0.	Sept. 1872	
12000 Roman Gravels, t, Salop*	7 10 0	—	21	20 21	2 8 0.	0 8 6.	July 1873